

OCTOBER 2011

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# choice

THE PEOPLE'S WATCHDOG

## TESTS

Washing machines  
Air conditioners  
Refrigerators  
Home theatre speakers  
Pocket camcorders  
Batteries  
High-end cameras  
Smartphones

PROPERTY  
"NEWS"  
Not the  
real deal

## Pet insurance

What price peace of mind?

## FREQUENT FLYER POINTS

The value of your loyalty

## LASER HAIR REMOVAL

The burning issues

194  
products  
reviewed!





## Claims of shame

Whether it's real estate or food labels, consumers need clearer information. That's where we come in.

**O**ur members are an integral part of CHOICE, which is why we seek your input on everything we do, from the investigations we undertake to the products we test and the campaigns we run. Many of you accepted our recent invitation to become voting members, and I look forward to seeing you at the AGM.

I've already received very positive feedback about our magazine's new look with its extra pages and articles. While the trend in media is to cut costs, we're investing more than ever in the magazine to provide you with the best possible value. You'll also see on the front of this issue that we have refreshed our logo, which will be used on our new mobile site (see page 74 for details) as well as online.

This month's magazine is full of great stories. The one that caught my eye was *Hard News or Hard Sell?* (page 21), which is about how biased content is passing as objective reporting in the property sections of some papers and online. It seems the real estate business is up to the same tricks the world over. A few years ago when I was working

for CHOICE's sister organisation, Which?, in the UK, I set up a fake estate agency to demonstrate the shortcomings of the regulations in that market. I called the agency *Cheatem and Rip Off* and hired a shopfront on Great Portland Street in London to prove the point!

It seems that when journalist Zoya Sheftalovich talks about her discoveries being just the tip of the iceberg, she's speaking for many who will read it and have plenty more examples of other wrongdoings. If this is an area on which you think we should focus more attention, please let me know.

Finally, late last month, CHOICE launched its Campaign for Better Food Labelling by calling on Australians to Shame the Claim – a nationwide search to find food labels carrying dodgy nutrition claims that make choosing healthy products difficult. Between now and the end of the year, state, territory and federal governments have a once-in-a-generation opportunity to act on

the recommendations of an independent review into food labelling, which includes stamping out dodgy nutrition claims on food. Our other priorities are front-of-pack traffic light labels, better country-of-origin labelling and a consistent standard for free-range labels. You can find out more and join the campaign by going to [choice.com.au/shametheclaim](http://choice.com.au/shametheclaim).

Nick Stace, CEO

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Twitter: @nickstacetweets



At the launch of our Shame the Claim campaign

## CHOICE. The People's Watchdog

CHOICE gives you the power to choose the very best goods and services, and avoid the worst. We pay full price for all the products we test, so we remain 100% independent. We don't take advertising and we don't accept freebies from industry. We're not a government body and our consumer publishing and advocacy is almost entirely funded by subscriptions to our magazines, [www.choice.com.au](http://www.choice.com.au) and from other services we supply to benefit members and consumers. CHOICE product ratings are based on lab tests, expert assessments and consumer surveys. CHOICE staff also research a wide range of consumer services. They reveal the truth behind the facts and figures, and investigate the quality and the claims.

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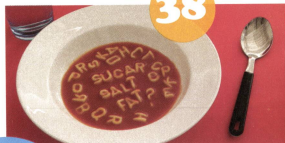


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Chris Barnes doesn't know the meaning of the word "hot"





## Free bags binned

A ban on the distribution of plastic bags in supermarkets, grocers and takeaway food shops will come into effect from 1 November 2011 in the ACT.

The move comes after a similar ban was imposed in NT earlier this year and SA in 2009. But it may not mean a reduction of plastic bags in landfill overall – the consumption of bin bags in SA jumped by 52.5% from 48 million bags sold in 2008 to 73 million bags sold in 2009.

"There's a clear correlation between the ban and consumer behaviour," says a spokesperson from Glad, one of the

bag makers that benefited from the boom.

"But while growth jumped the year of the ban, it's come back in line with normal growth patterns this year."

But Simon Corbell, ACT Minister for the Environment, Climate Change and Water, believes there is still a benefit from the ban. When announcing the ban, he pointed out each Australian uses an average of 345 plastic bags a year, which take 1000 years to decompose in landfill.

ZOYA SHEFTALOVICH

## On the nose

A preliminary study of an electronic "super nose" has found it can analyse body odour to identify the onset of heart failure. The small device, which is placed on the forearm, is made up of a number of gas sensors with varying sensitivity to certain molecule types, and detects gases that are associated with heart failure.

ZOYA SHEFTALOVICH

## Dodgy distribution

Cheap electrical goods stamped with the names of high-end manufacturers may be getting unwittingly sold by retailers.

The ACCC is concerned some premium-branded products being sold in Australia may in fact have been manufactured in Chinese factories that have a reputation for cheap, bottom-end products. The watchdog says it will investigate whether companies and distributors are guilty of misleading and deceptive conduct under the Australian Consumer Law by not telling retailers or consumers that the company whose name is on the product is not responsible for its production, sale or warranty.

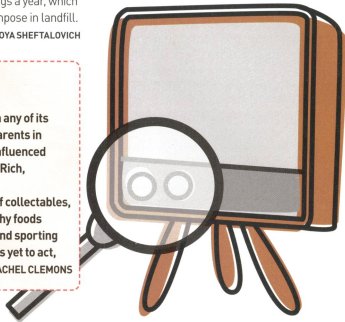
SAM BUTLER

## Junk food no longer child's play

KFC Australia has announced it will no longer provide toys with any of its children's meals. "We hope this decision today will support parents in making dietary decisions on behalf of their children which aren't influenced in any way by pressure to choose the meal that has a toy," said Zac Rich, KFC Corporate Affairs Manager.

CHOICE has long campaigned for regulation to restrict the use of collectables, giveaways and competitions that act as an incentive to buy unhealthy foods for children, as well as the use of celebrities, cartoon characters and sporting personalities to promote these types of foods. While government is yet to act, KFC's voluntary move is a step in the right direction.

RACHEL CLEMONS



## BREAKING NEWS

## My, my, my

In a move designed to increase public service transparency, an improved MyHospitals website myhospitals.gov.au is set to go live from this month. The National Health Performance Authority will run the site, which will inform consumers about hospital performance including local public and private hospitals, primary health care and community health services. The website upgrade is part of the federal government's \$175 billion National Health Reform package.

ADAM GLYDE

## Super reforms

Under new "Stronger Super" reforms to superannuation, employees who don't submit their fund preference paperwork will automatically join the government-run MySuper, a low-cost fund to be established in 2013. Those with lost super will also benefit – it will automatically be rolled into existing accounts. To find out how to claim your lost super, see page 25.

ADAM GLYDE

## Change of heart

The National Heart Foundation has withdrawn its tick licensing program for the takeaway food environment, citing a decision to take a tougher stance on improving healthy eating options.

KATE BROWNE



## Sounds great, but so is the cost

CHOICE testing over the past few years has found TV audio quality decreasing as models get thinner, leaving no room for decent-sized speakers. The new Bose VideoWave reverses this trend with the best audio we have heard come out of an LCD panel – but at what cost?

At the centre of the Bose VideoWave is a HD-quality 117 cm (46-inch) LCD screen that our testers rate as good overall for picture quality, although not as good as some of our recommended models at a quarter of the price. Surprisingly, you need to add a PVR or HD set-top box to the mix if you want to watch TV as it doesn't include a HD tuner – so technically it's an LCD panel rather than a TV.

An external control box accepts inputs from various devices and the remote control is easy to use and controls a wide variety of devices such as a PVR, games console and DVD player, with onscreen menus for each. There's also an iPod dock with support for both audio and video playback.

The VideoWave incorporates 16 small speakers and a subwoofer at the back of the panel, operating in a similar manner to a sound bar to create the impression

of sound coming from different points in the room. This speaker system adds to the size of VideoWave, and at 48kg it's more than double the weight of some 46-inch TVs.

The surround sound audio setup is simple and effective, taking about 15 minutes to calibrate the system to your room, with adjustments made based on echoes. Our listening panel found that overall it effectively creates the impression of surround sound, though not as convincingly as a good home theatre system with separate speakers.

## CHOICE VERDICT

The asking price is pretty steep for a good quality 46-inch panel (without TV tuner) with integrated speakers and sub-woofer – even taking into account the appeal the Bose name carries for some people. Interestingly, the same product is available on the US Bose site for about US\$5000. **DENIS GALLAGHER**

## BOSE VIDEOWAVE

PRICE \$7999

CONTACT [www.bose.com.au](http://www.bose.com.au)

## Skin-deep results

**A**nti-wrinkle creams only work a little better than plain moisturiser, according to tests carried out by American watchdog Consumer Reports.

Our US sister organisation tested seven widely available anti-wrinkle creams on 79 people aged 40-65 with moderate to marked fine lines and wrinkles. While they worked a little better than plain moisturiser for some people, none worked better for all people. Furthermore, the effects were very modest – even the best results were barely noticeable.

The good news is that the best product – the one that made some difference to the greatest number of people – was one of the cheapest: Garnier UltraLift Anti-Wrinkle Firming Day Cream SPF15.

Others recommended from previous tests include Neutrogena Anti-Wrinkle Deep Wrinkle Serum and Olay Total Effects Eye Transforming Cream. The most expensive on the test, Lancôme Rennergie Double Performance

Treatment Firming,  
wasn't much  
chop for  
most testers.

KARINA BRAY

"It's cost me more  
to rebook my flights  
than the flights cost  
in the first place"

## I say

**I**t seemed like such a great idea at the time – a gang of girls heading off for a weekend in Brisbane to celebrate a hen's night. The cheap \$165.70 return Qantas flights, booked months in advance, sealed the deal.

However, life intervened, and with a new job and a heavy study schedule I realised I wouldn't be able to stay for the entire weekend as planned. But at least I could still make it for the all-important hen's party, to do my bit to embarrass the bride-to-be.

Or not. As it turned out, it was going to cost me more to rebook my flights than the flights cost in the first place.

We all know there are rebooking fees – especially on cheap flights – and it's reasonable to expect that fares go up closer to the date of travel, so I was willing to fork out the \$55 change fee and the difference between fares. But I didn't expect to be charged an additional \$40 for the privilege of rebooking with a call centre assistant.

Naturally, I offered to rebook online. But that wasn't an option – with a group booking, the only way to rebook is by



phone. My request for the charge to be waived was ignored. But all was not lost – I was told I could cancel the flight in exchange for credit. Qantas cheerfully advised they'd be happy to provide me with that service, as long as I paid the change fee (which had increased to \$60 between calls just a couple of weeks apart!) and the customer assistance fees, leaving me \$65.70 in credit.

And of course, there were strings attached. The final slight was being told I could only use the credit to purchase fares that cost the same or more than the initial flights. Somehow, I don't think that will be difficult – my original bargain basement fare is now \$243.

ANGELA McDUGALL

## WHOOOPS!

In our story on flight comparison sites (*CHOICE*, September 2011) we said Jetabroad charge no booking fees, when in fact they may depending on the requested itinerary.

In the same issue we also listed the price for the Fanaway EV01 Prevail 210899 ceiling fan as \$289. The distributor advises the correct price is \$389.





## Brit bargain busters

**T**ough economic times coupled with the rise in online voucher sites are fuelling a freeconomy in the UK, with 75% of Britons hopping online to find savings. So many Brits are taking advantage of discount vouchers, special offers and freebies that the average adult is saving £1196 (A\$1828) a year, according to research from Halifax Home Insurance.

The Halifax survey of 2000 adults found nine in 10 regularly use money-off vouchers or actively look for deals. Almost half (42%) say they look for bargains because money is now so tight. Deals on meals are the top target for a discount – more than half (53%) save on restaurants, takeaways and fast food – with holidays and flights close behind.

Any social stigma associated with looking for deals has all but disappeared, with just one per cent saying they're too embarrassed to use discounts.

RACHEL CLEMONS



### Your story

If you would like to be in our next Member Spotlight, please email your details to [inthespotlight@choice.com.au](mailto:inthespotlight@choice.com.au)

## Apples from across the ditch



**A** decision to allow apple imports from New Zealand has sparked fears that fire blight could spread to Australia. The disease affects apples and pears, and concerns for Australian orchards have prevented imports from NZ for more than 90 years. Imported apples will face strict quarantine tests.

The decision follows a World Trade Organization ruling in November 2010 against Australia's import restrictions. Failure to abide by the ruling could see NZ legitimately counter-block Australian imports.

ANGELA McDOUGALL

## HPV vaccine staves off cancer

**T**he vaccine used to prevent cervical cancer caused by the human papillomavirus (HPV) also provides strong protection against anal cancer caused by HPV strains 16 and 18 in women, a study of 4210 women has found.

While anal cancer is rare in women, rates are rising. The HPV strains 16 and 18 are responsible for up to 80% of anal cancers, says Professor Aimée Kreimer, one of the study's authors.

ZOYA SHEFTALOVICH



## Coles chic

**F**irst it was groceries, then insurance; now, supermarket giant Coles is selling fashion at selected outlets.

While it's not the first time Coles has sold clothes, the Mix collection is a new direction for Australia. Supermarket fashion has been a successful strategy in Canada, the US and UK. British supermarket Tesco brand F&F has been so popular it recently sponsored London Fashion Week.

The first range is primarily for women, with most pieces costing less than \$25. There are plans to roll out a range for men later on.

CHOICE members tell us they're generally positive about Coles selling clothing, though most said they would only buy items if the fit and quality were right.

KATE BROWNE

## Netting the competition

**T**wo-thirds of Australians are in favour of the government taking action to ensure competition on the internet, according to new research by The Australia Institute.

However, the report also reveals a number of people are less concerned about a lack of diversity online than in traditional marketplaces.

The institute's executive director and report co-author, Dr Richard Denniss, says there is a real risk of online retail becoming dominated by a few big-name brands and retailers, not unlike the existing Coles/Woolworths duopoly.

The institute's report, *What you don't know can hurt you: How market concentration threatens internet diversity*, found 46% of surveyed online shoppers admitted the order of search results always or sometimes influences their buying decisions. The research also found more than 37% are unaware that search engines display paid advertising.

"Unless regulators pay more attention to the need for online diversity – and there is greater understanding of how search engines function – online retail could come to resemble today's shopping centres, in which the appearance of choice exists but actual choices are limited to a small number of players," says Denniss.

KATE BROWNE

**46%**

of online shoppers admit the order of search results always or sometimes influences their purchasing decisions



## One giant leap for phone-kind

**C**harging smartphones has become another daily (or worse) chore for most of us, made more difficult when there's no power point in sight. But what if you could recharge wherever you are, simply by plugging your phone into your shoe?

Although only at conceptual stage right now, two universities in the US have independently designed devices to be fitted into shoes and capture the energy produced by walking. To make their prototypes so small and efficient, both research teams used tiny amounts of liquid in different but novel ways to harvest the mechanical energy.

JANE BARDELL

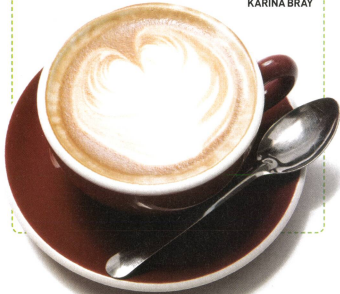
Researchers now want to see if applying caffeine to human skin has a protective effect against skin cancer

### Slip, slop, slap – sip?

That daily cuppa could be doing more good than you realised. Researchers have found a mechanism by which caffeine may kill off UV-damaged cells before they can develop into non-melanoma skin cancer. But you can't entirely depend on it – experiments found test mice still developed skin cancer, though a lot less readily than control mice.

This could be a useful addition to the anti-cancer arsenal. Researchers now want to see if applying caffeine to human skin has the same protective effect.

KARINA BRAY



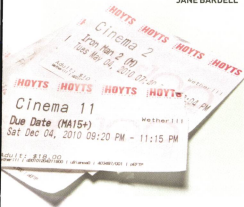


## App the movies

**H**oyts has created a Facebook app that allows you to invite friends, reserve seats and buy movie tickets at the same time – it even gives you the option of letting everyone pay for themselves. As with purchases through their website, a \$1 per ticket booking fee applies.

CHOICE is concerned over the lack of security – the app doesn't automatically use secure https encryption. To protect your credit card and personal information, make sure you (and all your friends) go into account settings, switch to secure browsing, and check that https appears in the address bar before you punch in your credit card details.

JANE BARDELL



## Mighty Amazon

**A**mazon is the world's most visited online retailer of those analysed by comScore, with 20.4% of the online population hitting the giant's websites, according to a report measuring online traffic numbers to select global and retail auction sites. According to comScore, Amazon reached a global audience of more than 282 million people in June this year. The runner-up was eBay, visited by 16.2% of global internet users, followed by China's Alibaba.com on 11.3%, and Apple sites on 9.7%.

ZOYA SHEFTALOVICH



## Shameless plug

**B**ack in 2009 we found the Shonky-winning Reegen Micro-Plug didn't save you any energy as promised, but this hasn't stopped others from trying to sell similar devices. The Go4Green EnergySmart device claims to save up to 10% of the energy used in your home, as well as money by improving power factor and reducing harmonics – technical terms referring to electrical power elements. At \$299 a pop, it states it will pay for itself within about six months.

We hooked up a variety of motor-driven devices to the EnergySmart, including a vacuum cleaner, drill, grinder and pump. We recorded the power use without the device first, then with it plugged in, and found there were only negligible savings. In some cases, it even cost us marginally more. In response to our queries, Go4Green supplied us with more positive testing results from an independent third-party company as well as testimonials. They also told us their claims relate to a whole house scenario rather than individual appliances.

We then measured the energy usage of a dryer, washer, air conditioner and a variety of smaller appliances in a house. We plugged in the device as per the instructions and ran the appliances again on the same programs. Our testing found negligible changes in energy

consumption. While we did see some changes in power factor and harmonics, these elements are not taken into account on your electricity bill so they won't save you money.

Leading electrical engineer Professor Vic Gosbell from the University of Wollongong told us a device such as this will have little impact on your power bill. Other plug-in products claiming a reduction in your energy bill have recently been pulled up by the ACCC, requiring corrections by the distributor. We've sent our Go4Green findings to the ACCC requesting similar action.

## CHOICE VERDICT

There's little proof to back up the EnergySmart's claims, and sure enough, Go4Green have since announced they're no longer in business, though we were able to purchase another sample through a group-buying website.

MATTHEW STEEN

### GO4GREEN ENERGYSMART

PRICE \$299

CONTACT

[www.go4greenenergysmart.com.au](http://www.go4greenenergysmart.com.au)

**NO STARS**



## The Spirit of Australia

**Q**antas has been forced to defend plans to cut 1000 jobs despite healthy full-year profits.

The company posted a strong full-year before-tax profit of \$552 million – a gain of 46% – but claims poor performance in the international sector has caused the job losses. The move has drawn widespread criticism from unions and politicians, including allegations of

creative accounting from the Australian and International Pilots Association. Qantas has vehemently denied the allegations, which were based on a report from PPB Advisory.

Qantas Frequent Flyers accounted for two-thirds of the year's profits – \$342m before tax. See our investigation into frequent flyer schemes on page 16.

BRENDAN MAYS

## Healthy dose of retail therapy

**A** study of Taiwanese adults aged over 65 found those who went shopping – even window shopping – more than once a week were less likely to die during the study period than those who shopped less frequently.

This could just mean that people in a poorer state of health weren't up to much shopping, but the researchers believe benefits such as regular supplies of fresh food, exercise and social interaction contributed to the positive result. Sadly, this probably means online shopping won't have the same effect.

KARINA BRAY

## Formula for success

**T**he CSIRO and Clover Corporation are collaborating to develop the next generation of nutritional ingredients for infant formulas, which will incorporate bioactive compounds found naturally in breastmilk in such a way that they're more readily absorbed.

While the news is good for mums who need to supplement or replace breastfeeding there will be a wait – the research program is set to take three years. Scientists need to ensure the compounds remain intact all the way from manufacture to when they reach the right part of



the infant's digestive tract to maximise benefits for their development and immune function.

RACHEL CLEMONS

## Toxic-free textiles

**T**he Council of Textile and Fashion Industries of Australia has established a committee to investigate growing concerns about toxic substances found in imported textiles, clothing and footwear. The committee will conduct random product testing to assess the presence of chemicals such as dimethylfumarate (DMF), AZO dyes, hexavalent chromium Cr(VI), heavy metals and pesticides in clothing imports. Some AZO dyes as well as DMF may be potentially carcinogenic and are restricted in the EU and other countries.

Among the committee's key objectives are verifying the existence of these chemicals in children's wear, and to discuss the best model for regulation with government. The committee includes representatives from the CSIRO, RMIT, Australian Wool Testing Authority and CHOICE.

KATE BROWNE

## Phone tapping

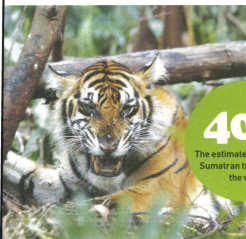
One recently hyped development in smartphones is their ability to be used as mobile payment devices using Near Field Communication (NFC), the technology behind MasterCard's Tap n Go and Visa's PayWave.

Google Wallet has been quick to develop the wave-to-pay technology,

with plans to link phones to credit cards and pre-paid accounts already in place. But as there are no plans for an Australian release, the Commonwealth Bank may beat the internet behemoth to the punch. Rumour has it the bank has developed a mass-market NFC mobile phone payment system that uses a MicroSD

card embedded with a contactless chip that can be inserted into phones to transform them into mobile wallets.

But NFC payments have been marred by poorly communicated security issues and the inability to opt out of the technology with new cards. It's not known whether mobile NFC will address these issues. **BRENDAN MAYS**



**400**

The estimated number of Sumatran tigers left in the wild

## Tigers threatened by toilet paper

**G**reenpeace recently uncovered video evidence of a Sumatran tiger dying in a trap after, they claim, its habitat was destroyed by Asia Pulp & Paper (APP), the parent company of Solaris Paper in Australia. In response, APP's biggest Australian customer, IGA, and parent Metcash dumped the supplier until it cleans up its act. APP still supplies toilet paper to Cottonsoft in NZ, and to hotels, cafes

and other organisations in Australia through Solaris's Livi brand. In a statement, the company blamed local hunters for the debacle. However, Greenpeace has long pointed the finger at APP for a poor sustainability record. Earlier this year, the ACCC fined APP \$4.2m for price fixing. The company was also recently forced to apologise to Greenpeace and Metcash for abusive online comments after an IP address was traced back to Solaris. **BRENDAN MAYS**

## TALKBACK

Do you still use cheques? Banks are proposing to get rid of them altogether. Tell us what you think about this – email [talkback@choice.com.au](mailto:talkback@choice.com.au), or visit us on Facebook or Twitter.

## Taxing trickery

Some consumers are getting emailed or phoned by scammers claiming to work for the ATO and offering "surprise" bonuses. In one phone scam, the offer is an eventual \$7000 grant in return for an immediate \$200 outlay. "These scammers try to appear more legitimate by providing you with a case number and telephone number to call back on," says Tax Commissioner Michael D'Ascenzo. The request for an international transfer of \$200 should be a giveaway, as should the request for personal details.

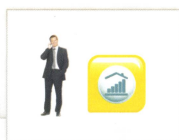
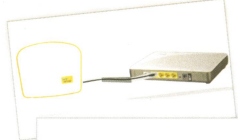
ANDY KOLLMORGEN

## Mastering hardware

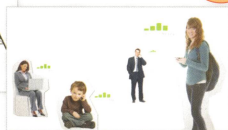
Woolworths has gone head to head with Coles on paint and hammers, entering the hardware market with its home improvement venture, Masters. The first store opened in Braybrook, Victoria, with a further 20 under construction. Woolworths plans to purchase another 150 sites within the next five years. The hardware chain is a joint venture with US-based Lowe's Companies. Woolies told CHOICE that the store will deliver a "total solution approach" to home improvement, with each store offering about 35,000 lines. Time will tell whether Masters knocks Bunnings off its pedestal.

INGRID JUST





**FIRST  
LOOK**



## In the zone

**T**he Optus Home Zone is effectively a personal 3G mini-mobile cell, useful if your normal 3G Optus mobile service has drop-outs or connection problems. Setting it up is reasonably simple if you have a basic understanding of how to connect to a router or modem. The main unit shouldn't be closer than 40cm to your body and should be kept at least 30cm away from wireless routers, as there could be some interference.

Every phone you use with the system must be registered. Our attempts with an iPhone 3G failed, but the newer HTC Incredible S was recognised almost immediately. Our test area has poor

reception with most carriers and getting two bars on any phone is rare. The Home Zone lived up to its promise, with our test phone getting five bars for at least 20 metres and through two walls.

However, the service comes at a cost. The two-year contract is \$5 per month for those on an Optus plan of \$59 or more, or \$15 monthly on a plan of \$49 or less. Standard national calls from the primary phone are free, but 13 or 1300 numbers and calls from the other registered phones are charged at the normal rate for their plan. There's a \$300 early exit charge, and all the equipment is owned by Optus. Service

is limited to specific areas and relies on an internet connection with a broadband download speed of 1Mbps and upload speeds of 512kbps to support up to four simultaneous voice calls.

Optus estimates broadband usage to be about 1.5GB per month for one mobile phone user and about 3.5GB per month for four. If you run out of broadband, your Home Zone will stop working and even emergency calls won't function.

## CHOICE VERDICT

Home Zone is a solution for situations where there's a weak Optus signal, but we think Optus should boost their signal in dead zones, or provide the service for free.

**CHRIS RUGGLES**

### OPTUS HOME ZONE

**PRICE** \$5 to \$15 per month

**CONTACT**

[www.optus.com.au/homezone](http://www.optus.com.au/homezone)



## Bird flu is back

**T**he United Nations Food and Agriculture Organization (FAO) has warned of a possible major resurgence of H5N1 influenza, known as bird flu. According to the FAO, eight human cases of H5N1 were reported in Cambodia this year, all fatal.

Since being discovered in 2003, H5N1 has led to the culling of more than 400 million poultry and caused an estimated \$20 billion of economic damage across the globe. It has also infected 565 people, killing 331. While the virus was eliminated from most countries, avian outbreaks have risen since mid-2008, with almost 800 cases recorded in 2010-2011.

"This is a dangerous situation, both

from the economic and social aspect of lost high-quality protein production in developing countries, and from the possibility that the continued exposure of humans and pigs could lead to the emergence of a mutant H5N1 virus that could spread and trigger a global pandemic," says Professor Peter Doherty, Laureate Professor in the Department of Microbiology and Immunology at the University of Melbourne.

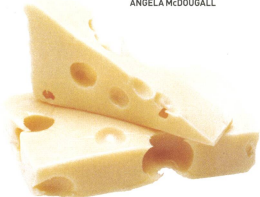
But Australia is not currently on the high alert list. "We have not had any H5N1 outbreaks in Australia ... We are protected by our quarantine and by avian migration patterns," says Doherty.

**ZOYA SHEFTALOVICH**

## The big cheese

**F**SANZ has invited comments on a proposal to allow certain raw milk products that have not undergone pasteurisation or an equivalent pathogen reduction process to be sold in Australia. This means non-pasteurised, hard or very hard, cooked curd cheeses could be making their way to a platter near you.

**ANGELA McDOUGALL**





## The gift that keeps on taking

**S**ometimes a phone app is not as free as it looks, as some parents whose kids have access to their mobile phones have found. While many of Apple's games are free, the additional downloads that make the games go are often not.

In the case of the popular iPhone game, *Treasure Story*, CHOICE has heard of one case where a child racked up hundreds of dollars on his mum's credit card overnight. The Australian Communications and Media Authority is looking into the issue.

More recently, a lesser-known company has been catching consumers unawares. A CHOICE staffer was stung after receiving an unsolicited text and inadvertently agreeing to third-party purchases. He only caught on when an unexplained \$35 charge from Dialect Interactive turned up on his Telstra bill. Telstra reimbursed him but warned they wouldn't next time, and the telco has apparently made no attempt to stop the company sending texts to its customers.

The number of complaints to the Telecommunications Industry Ombudsman was up by 14,270 in the first quarter of this year, the majority about mobiles.

ANDY KOLLMORGEN

## Solar sunset

There was a time not so long ago when a solar photovoltaic panel system could pay for itself in less than five years in several states in Australia (CHOICE, March 2011). But with the slashing of feed-in tariffs across the country and the reduction of the multiplier for small-scale technology certificates – not to mention rising electricity prices – most new panel installations will take much longer to pay off.

In response to these changes, CHOICE has asked the Alternative Technology Association to recalculate the approximate payback times for 1.5kW and 3kW solar systems in each state and territory.

For the results and further details, visit [choice.com.au/pvpanels](http://choice.com.au/pvpanels).

ZOYA SHEFTALOVICH

# 600%

The high end of payday loan interest rates

## Borrower beware

**A**ustralia's leading payday lender, Cash Converters, saw a 27.5% rise in profit last financial year and pulled in almost 50% more revenue, or \$186.1 million. Interestingly, it only lent out about \$204.6 million.

Payday lenders have ducked beneath the regulatory radar for a long time. In late August, Assistant Treasurer Bill Shorten moved to change this, introducing draft legislation that puts

a cap on payday loan interest rates, saying Australians have been "massively exploited".

Rates presently go as high as 600% plus fees, while in NSW, Queensland, the ACT and Victoria, 48% p.a. is the official limit for banks, including fees. The US pioneered the practice, and many payday lenders here are backed by overseas investors.

ANDY KOLLMORGEN

## Heartening for chocolate lovers

**C**hocolate lovers have a reason to be cheerful – eating two pieces a week is associated with a 37% lower risk of cardiovascular disease and 29% lower risk of stroke, according to a meta-analysis published in the *British Medical Journal*.

But don't break out the celebratory block just yet. Studies such as this cannot confirm a causal link between chocolate consumption and the health benefits. "Evidence does suggest chocolate might have some heart health benefits but we need to find out why that might be," says Victoria Taylor, senior heart-health dietitian at the British Heart Foundation.

ZOYA SHEFTALOVICH





# Your Say

We want to hear from you. If your experience has not been good, then you can help other CHOICE members avoid scams and rip-offs. If you've had a great response to a complaint you've taken to a manufacturer or retailer, our members want to know about that too! Email us at [yoursay@choice.com.au](mailto:yoursay@choice.com.au) or write to Your Say, CHOICE, 57 Carrington Road, Marrickville, NSW 2204. Letters may be edited for length and clarity.



## Mussels from where?

**W**e recently bought a few tins of smoked mussels from our local supermarket (see right). The packaging states "100% Australian owned", which is what made us decide to buy this particular brand. Later at home, I opened one of the tins and had a closer look at the writing that was on the package. In very fine print on the back (I needed a magnifying glass to read it) it says "Product of China". I am very disappointed in the manufacturer.

**Bernard Wajer, Sedan, SA**

*You're not alone in finding country-of-origin claims confusing – 90% of CHOICE members surveyed want to see clearer labelling (CHOICE, June 2011). We have long advocated for better country-of-origin labelling and will continue to do so through our Campaign for Better Food Labelling.*

## Freezer meltdown

**A**fter only eight weeks of operation, our new Westinghouse freezer went into meltdown and died. We assumed the freezer must have had

a manufacturing fault given such a short period of use, and as such was not of merchantable quality and should be replaced. Westinghouse-Electrolux declined to replace it, instead offering to have it repaired under warranty.

While the serviceman was working on it, the freezer started again, but he could not say why, suggesting a loose connection was responsible for the fault. However, within a few days, it

**CHOICE SAYS** Unfortunately, the claim "Australian owned" does not necessarily mean the product is manufactured here. Your best bet for a product that has been sourced and manufactured in Australia is the "Product of Australia" claim – this means each significant ingredient comes from Australia and the processing also happens here.

If buying both Australian-owned and manufactured products is important to you, look for the Australian Made and Owned logo. This logo means the company is Australian-owned and also manufactures its goods here – you can visit [australianmade.com.au](http://australianmade.com.au) for more information. Also look out for the Ausbuy logo ([ausbuy.com.au](http://ausbuy.com.au)) – majority Australian-owned companies that source and produce here can use this logo.

## LETTER OF THE MONTH

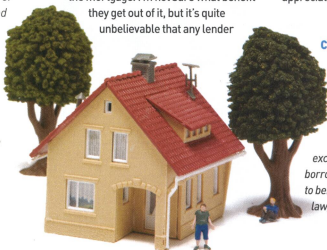
### Murky mortgage broker

**I**'ve just been informed by a mortgage broker that I may be required to sign over my superannuation as security on a loan. This would effectively give the lender almost double the cover over the mortgage. I'm not sure what benefit they get out of it, but it's quite unbelievable that any lender

would need security over and above the principal of a loan. I've also been told that lenders "aren't keen" on lending to over-55s. I thought CHOICE would be interested in these practices and I'd appreciate any advice you can give me.

**Paul Wallis, Yagoona, NSW**

**CHOICE SAYS** There are laws to ensure you can't access your super before age 55, including offering super as security on a loan. Even after age 55, you generally can't use your super as security to access a loan. The exceptions are for short-term borrowing of 10% of the account or less to beneficiaries when it's required by law, and for self-managed super



stopped working again. This time we contacted NSW Fair Trading, who told us we had a contract with the seller and so should contact them. The retailer, Harvey Norman, was much more sympathetic to our problem and quickly agreed to a replacement, delivering the new freezer the next day. What a contrast in customer service!

**Glynn & Sue Burch,  
Minnie Water, NSW**

**CHOICE SAYS** When you buy a new product from a retailer it must be of acceptable quality, meaning it is safe, durable and free from defects. This is guaranteed by both the seller and the manufacturer. You can reasonably expect a new freezer to operate beyond eight weeks, so in the case of a major failure such as this, you will be entitled to your choice of either a refund or replacement.

**funds. In some cases, SMSFs can set up a trust and use it to borrow money and buy an investment property, but this involves meeting strict guidelines, including restricting who can live in the property.**

Commonwealth law requires lenders to assess a loan applicant's ability to make repayments before offering a loan. There's no reason why over-55s should not be considered under these guidelines. You can even use the income from your super to help repay a loan, though this is balanced against your ongoing financial needs. We recommend getting individual financial advice when taking on a big commitment, and a second opinion if something does not seem right. You can also report fishy behaviour to ASIC on 1300 300 630 or via their website: [asic.gov.au](http://asic.gov.au).

*The seller or manufacturer can provide a replacement, but only the seller can actually provide a refund (unless you actually buy the product directly from the manufacturer).*

*We're happy to hear about the good customer service and timely delivery you experienced with Harvey Norman.*



## Papering over cracks?

I was interested to read your Paper Castles story (CHOICE, August 2011). Having spent all my working life as a licensed building contractor (now retired), I can point to two matters that have been of real irritation over the years.

First, before houses are energy-rated, the land developer should be made to consider the layout of the building allotments so that houses are not built facing east-west, particularly given that in summer the front or rear of a building is affected by heat in both the morning and evening. In many houses I see these days, the double or triple garage has the prime north-facing spot.

Secondly, the placement of insulation is often initially done well, only to be displaced later by other tradespersons – particularly in the above-ceiling installation of lights and air-conditioning ducting – thus rendering the insulation all but useless.

**Murray Smithers,  
Southern Highlands, NSW**

## Thumbs



**Dave Sammut** of North Ryde, NSW, can't praise Roche Diagnostics Australia highly enough. His wife needed a blood monitor following a severe, life-threatening illness, but no-one could help him locate a surgery with this equipment. He contacted Roche, the manufacturer, who immediately offered to loan him the monitor for free for as long as it was needed, and even provided a starter kit of the expensive test strips used by the machine.



**Steve Swift** of Kambah, ACT, had an excellent response from Aldi to a complaint regarding one of their products. He found a small rock in a can of Sweet Valley Apple Blackberry Pie Filling, and required a visit to the dentist. Aldi were prompt with an apology, and after investigating the problem issued him with a voucher for \$120 – the full amount of his out-of-pocket dental costs.



**Britax** impressed **Lara Palmer** of Carrum Downs, Victoria. She recently converted her four-year-old daughter's Safe-n-Sound Maxi Rider from a front-facing child restraint to a booster seat and, when removing the cover, found the foam insert was cracked in five places. She called Britax, who posted out a replacement part that arrived the next day.



# Frequent failure

Unless you fly often, frequent flyer points won't get you very far. **Andy Kollmorgen** tries not to get fogged in.

## NUTSHELL

- Frequent flyer programs are confusing and complicated, but what is clear is that they've become a big dollar-driver for the airlines.
- Unless you're clocking serious air time, scoring a ticket or upgrade with points alone can be a tall order.

Australians who aren't frequent business travellers are faced with a dilemma. If you want to build up your frequent flyer points, you'll need to fly the same airline every time or only transact with businesses that allow you to earn points through a linked credit card. But what if a dream discount fare with another carrier pops up? Then again, frequent flyer miles have a limited shelf life – and are you flying

often enough within that limited window to obtain any real benefit? Like gift cards with too many restrictions, frequent flyer miles can be a gift that rarely, if ever, gives.

## Pointless schemes

Katie Mackenzie told CHOICE "when I do fly I choose the cheapest flight, which is rarely Qantas, where my points are. I had a large number of points with Ansett, mostly from credit card purchases, which I lost when they went bust."

Naomi Stephens adds, "I find it hard to convert points to seats – they never seem to have what I want, even outside of peak travel." John Loche simply points out that there are "too many points required for a flight".

One of CHOICE's shrewdest bargain-seekers, Zoya Sheftalovich, puts a fine point on it. "I used to care a lot, but over the past three or four years really cheap fares have become available with the discount carriers and the bigger airlines got stingy and made their points worth less in real terms. Plus they stopped awarding miles on the cheaper tickets. Last year I lost about 6000 points from not flying enough."

## How they work

Qantas, which awards points per mile, gives you at least 1000 points for every one-way flight if you're a frequent flyer member. (It costs \$82.50 to join but is free through Woolworths Everyday Rewards program. Virgin's Velocity program is free.) You could conceivably come out ahead on points with Qantas on flights less than 1000 miles, but only if you fly often enough that sticking to the same airline makes sense. In the Sydney-Melbourne scenario outlined on page 18, you'd get 1000 points from Qantas for the 443-mile flight to



Using points to purchase a toaster may not offer the best value

Melbourne in economy and the same for the flight back.

By contrast, you'd only get 1000 points all up for a \$200 return saver fare from Virgin, which awards points per dollar spent on domestic flights.

### The insider

Clifford Reichlin, whose online forum The AustralianFrequentFlyer.com.au has been a busy stopover for travellers since 2002, says frequent flyer points are a "promotional and marketing currency" designed to get consumers to fly more, not help them save money. "What they really want to do is convert the occasional traveller into a frequent traveller," he says. "It's not a loyalty program and has nothing to do with loyalty. The airlines aren't rewarding you for flying with them, they're trying to get you buy more airline tickets, preferably the pricier ones. If it were a straight-up loyalty program, your points wouldn't expire and the programs wouldn't be so difficult to figure out."

Due to the complexity involved in accumulating points, many casual travellers understandably don't know what to make of frequent flyer points. But what is clear is that the major airlines care a lot about them. Last year, Qantas generated more revenue from points than from original ticket sales, or about 60% of its net profit. Macquarie Transport analyst Russell Shaw told us Qantas' frequent

## Points needed to upgrade

### Qantas Frequent Flyer

- Sydney-Perth return: 32,000 for discount economy to business; 20,000 for economy to business.
- Sydney-London return: 192,000 for discount economy to business; 120,000 for economy to business.
- Sydney-LA return: 144,000 for discount economy to business; 90,000 for economy to business.

### Virgin Australia Velocity Rewards

- Sydney-Perth return: 19,800 for flexi fare to premium fare.
- Sydney-London return: No upgrades on international flights.
- Sydney-LA return: No upgrades on international flights.

flyer program is worth about \$2 billion.

Given its success, the frequent flyer business seems to be fuelled by basic maths. So long as Qantas charges its many partners more to buy points – and thus to be able to add them as customer incentives – than it costs the airline to redeem those points, they come out on top.

Reichlin, a former Ansett employee and industry consultant, confirms that the airlines have continually reduced the value of their frequent flyer points over the past 10 years, but not in ways that would be obvious to consumers.

"It's done quite subtly – the cash component of each point has increased with things such as fuel charges and other added costs. The point per mile or dollar may look the same on paper, but the overall cost of each point for consumers has increased dramatically," he says.

He also argues convoluted programs are a deliberate strategy. "A simple system would be much easier to understand for everyone, but that wouldn't really push the right buttons for the airlines. There are never-ending discussions on my forum about how to get value from your points, because there are so many variables, so many ways of doing it."

Reichlin points out that airlines draw considerable revenue from banks whose payment cards are linked with frequent flyer programs, yet there's no link between the profits and the availability of seats purchased with points. "How the seats are allocated is entirely up to the airlines, and there's no transparency for the consumer at all."

He estimates frequent flyer points to be worth about one cent a point on average – consistent with our estimate for domestic flights – but can also drop well below that value. "They will be worth a lot less than one cent if you buy a voucher or pay for goods and services. But if you manage to get the timing right and use your points for an ▶

**19,800**

Velocity points needed for seat upgrade, Sydney-Perth return

**1c**

The approximate value of a frequent flyer point

**8%**

The estimated percentage of unredeemed Qantas points



## Point by point

**Q**antas and Virgin Australia take a different approach to awarding domestic points, by distance travelled and dollars spent respectively (though Virgin also runs a complicated international points-per-mile system).

With an 18-month shelf life, Qantas' points disappear more quickly than Virgin's, which last 36 months, but the clock is re-set with both airlines once you earn or use points. In any case, it's status credits that really increase your earning potential – and you need to fly a lot to get them. If you don't earn or use your points before expiry, they go up in smoke.



**Frequent flyer**



|                                                         |                                                                                                                                                                                               |                                                                                                                                                                        |
|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>How are points calculated?</b>                       | One point per mile travelled, with bonuses awarded for premium seats                                                                                                                          | Domestic: Five points per dollar spent<br>International: Points per mile depends on seating and partner airline                                                        |
| <b>Minimum points awarded per trip</b>                  | 1000<br>(Does not apply to bonus point calculation; honoured on QF-marketed flights only)                                                                                                     | No minimum<br>(Points only awarded per dollar or mile)                                                                                                                 |
| <b>How long do points last?</b>                         | 18 months                                                                                                                                                                                     | 36 months                                                                                                                                                              |
| <b>Points needed: Sydney-Melbourne (return)</b>         | 25,000<br>(Economy – includes surcharges, fees and taxes)                                                                                                                                     | 19,600<br>(Economy – includes surcharges, fees and taxes)                                                                                                              |
| <b>Silver status</b>                                    | 300 status credits to qualify, then 1.5 points per mile.<br>250 credits per year to maintain status                                                                                           | 200 status credits to qualify, then 7.5 points per dollar.<br>200 credits per year to maintain status                                                                  |
| <b>Gold status</b>                                      | 700 status credits to qualify, then 1.75 points per mile.<br>600 credits per year to maintain status                                                                                          | 500 status credits to qualify, then 8.75 points per dollar<br>400 credits per year to maintain status                                                                  |
| <b>Platinum status</b>                                  | 1400 status credits to qualify, then two points per mile.<br>1200 credits per year to maintain status                                                                                         | 1000 status credits to qualify, then 10 points per dollar. 800 credits per year to maintain status                                                                     |
| <b>Status credits earned: Sydney-Melbourne (return)</b> | Discount economy – 20<br>Flexible economy – 40                                                                                                                                                | Economy – 20<br>Flexible economy – 40                                                                                                                                  |
| <b>Status credits earned: Sydney-Perth (return)</b>     | Discount economy – 40<br>Business – 160                                                                                                                                                       | Economy – 40<br>Business – 160                                                                                                                                         |
| <b>Status fine print</b>                                | A minimum of four eligible flights with a Qantas or Jetstar flight number is also required in each silver, gold or platinum membership year to maintain your level or move to a higher status | Silver, gold and platinum members are required to take two, four and eight Virgin Australia flights per year respectively in order to maintain their status or upgrade |

upgrade from economy to business, the value can jump to three or four cents per point. The problem is, it's very hard to pull that off."

(Reichlin's forum has also become an advertising and communication outlet for the airlines, but he insists there's a firm dividing line between posts from consumers and commercial content. "We maintain strict editorial independence.")

### Hunting and gathering

Many consumers don't know how to manage their so-called freebies from the airline industry because frequent flyer programs rarely have a precise shape. How many points you get from flying depends on whether you're flying on the member airline or its discount brand or partner airline, and whether you're sitting in economy, business or first class. Point accumulation is also determined according to whether you've previously spent enough on airline tickets to make it into a silver, gold or platinum program, and how many points you earn by using your credit card (see Card Count, opposite) or numerous other transactions.

But it's not just points you're after.

You also need status credits. The more you fly, the more status credits you get, and it's the status credits that pave the way to silver, gold or platinum status. As you move up, your point-earning power increases, but only if you buy tickets often enough – and fly far enough – to maintain your status. Status credits can only be earned by flying – and they disappear after 12 months.

On the face of it, Virgin Australia pulls slightly ahead of Qantas in its status credit offering. Virgin offers fewer credits for comparable trips (400 compared with Qantas' 480 for a return Sydney-London trip in business class), but also requires fewer credits to get into a status credit program and start earning more points (see left).

The common thread is confusion. The more you spend, the more you get, but the value of what you get is tricky to determine.



## Points on the ground

Of course, there are many ways to collect points other than flying. Qantas, for instance, has more than 400 retail partners. But whether the points are worth the price is another question. In a promo run last month, consumers were offered two Qantas Frequent Flyer points per dollar spent on a range of Optus services.

"I would never convert points to purchase – definitely not good value," says Naomi Stephens. Among the special offers in the Qantas Frequent Flyer store last month was an LG 32" LCD TV for 86,500 points and a Coleman 58L Xtreme Cooler for 19,700. If you flew Qantas Sydney-LA return five times as an entry-level bronze member you'd still be 11,590 points short of the TV, and 4718 points short of the cooler after a single round trip. (We found the products for \$439 and \$139 respectively at retailers.)

It's the same story with Virgin.

An Akai DAB digital radio was recently going for 15,900 points in the Velocity store,

## CARD COUNT

As we highlighted in our report on credit card-based frequent flyer miles last year (see *CHOICE* October 2010 or [choice.com.au/travelrewardcards](http://choice.com.au/travelrewardcards)), you'd have to spend big dollars on your credit card every month and pay the balance in full without fail to make it worthwhile. Our calculations showed that a \$5000-per-month spend on your credit card would earn you a maximum of about \$1000 worth of points a year on either Qantas or

and you could throw in a Breville 34L microwave for another 34,900 points. If you flew Virgin Australia Sydney-LA return twice (discount economy) you'd still be 910 points away from the radio and could only get the microwave if you made the return trip four times. (We found the same products for \$72 and \$129.)

Nevertheless, Qantas Head of Airline Loyalty Stephanie Tully tells us the flying kangaroo "benchmarks goods sold versus other loyalty programs in the market and we believe we have a competitive offering". Virgin Manager of Corporate Communications Emma Copeman argues "our redemption pricing is competitive and represents real value".

## Upping the ante

Qantas and Virgin Australia – the only two domestic carriers that offer points – are battling it out on the frequent flyer front, with Virgin playing catch-up to Qantas' long-standing market dominance. Late last month, Virgin released a re-tooled version of its Velocity, including a new platinum level for status credits and the opportunity to upgrade on domestic flights using points (previously unavailable).

The new Virgin plan looks like an effort to make points more user-friendly, especially for those who fly a lot. A promised upcoming feature is that families will be able to pool points and status credits and put their membership on hold for six months for parental leave without losing their credit status, something CEO John Borghetti says

Virgin in the best-case scenarios. If you spend less than \$1000 a month with your card, in many cases the net value of any frequent flyer points will be eaten up by fees.

"is very important to our customers who spend time away travelling and want to share their benefits with their families".

Borghetti admits that "reward seats were becoming harder to find and more expensive", although the revised Velocity Frequent Flyer program still does not appear to be designed to reward casual travellers.

Not to be outdone, Qantas has a new, higher-level platinum program in the works, aimed at a very select group of flyers.

**Virgin doesn't allow upgrades on international flights, and Qantas' don't come cheap**

## CHOICE verdict

Your points won't buy you much with either the Qantas or Virgin programs unless you fly a lot. And with stiff competition for passengers, you may save more money than what the points are worth simply by buying the cheapest ticket. Unless you fly often, don't let the pursuit of frequent flyer points dictate your itinerary. Competition is reportedly on the wane and deep discounts may be harder to come by, but for casual travellers, any significant savings on a ticket price likely beats the value of flyer points. Book the cheap seats and use the built-up savings to splurge for premium ones. ■



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## A-Z of gardening hints



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THE PEOPLE'S WATCHDOG

# Hard news or hard sell?

You shouldn't believe everything you read in the real estate section of your newspaper, says **Zoya Sheftalovich**.

**W**hile traditional media advertising revenues have been steadily declining along with circulation figures for many newspapers and magazines, the real estate sections seem to just get bigger. But in the murky grey area between the glossy snapshots and auction listings, where does advertising end and editorial begin? Does it even end at all?

## Great time to sell... or not

If you happened to be browsing the *Sydney Morning Herald* website on 3 September 2011, you may have come across this headline: "Spring property season not off to a great start". But while the news may seem bad on the surface for potential home-

sellors, you needn't worry, as another headline on the same day proclaimed: "Spring property market is set to bloom late." You should hurry and "spring into action" to "beat the seasonal rush and put your house on the market early", according to yet another article. Just in case you aren't convinced, another headline will surely put your mind at ease – "Sydney prices surge further ahead of the pack." And for buyers, spring is "hunting season if you're looking to buy a new unit... [it] is going to be the best time to buy for the last few years and for the foreseeable future."

The messages are contradictory. If you're buying, get in quick because the market is weak. Yet if you're selling, now's the time to sell, sell, sell! How can both be true?

"It's a complete myth, there's no evidence of it at all – in fact, last year spring was the worst time of the year to sell," says Terry Ryder, columnist with *The Australian* and founder of *hotspotting.com.au*, a website that sells reports on real estate trends. "Now you'll have a lot of people putting their houses on the market, and you'll never find any of that challenged in the newspapers."

Ryder, a former property editor at Brisbane's *Courier Mail* newspaper, argues "ad budgets influence editorial. There's very little or no scrutiny by journalists when they receive press releases from the industry – either the developer lobby or real estate agents. Most of what is written about real estate is a very thin rewrite from press releases." ▶





Alan Smith (not his real name), a former manager at Australia's largest community newspaper group, the News Ltd-owned Cumberland Courier Newspapers, agrees that "editorial" in commercial sections online and in print should never be taken for granted. "It's a commercial section of a newspaper," he says. "The real estate market works on the basis that the people who advertise their properties are paying for that section."

"While editorial isn't necessarily paid for, it's a symbiotic relationship where the online service will say, 'I've got this percentage of space for editorial, submit something to me', and if it's good enough it will be published. Real estate journalists will take a feed of guff from the real estate industry any day. Journalists can't possibly write a commercial section all themselves, so they're going to rely on information from the industry."

And when stories by different authors contradict each other on the same day,

Real estate agents make commissions from sales, so more sales equals more profit. "It's about turnover, that's where the money comes from," says Karantonis. "If you get two per cent commission and you sell a property for \$900,000, you don't really care if you could have sold it for \$920,000 – you just want to make the sale."

One veteran industry insider and current real estate academic is shocked people still think the real estate press is a credible source of information. "It staggers me that people still read [newspapers] with the expectation that they're getting property advice," he says. "It's a similar principle to getting marketing material in your letterbox. It's very rarely a bad time to buy or sell, it's always 'buyers wanting more property contact us now.'"

### The 'everyday' person

The papers are full of real estate success stories. But who exactly is behind those oft-quoted "first home buyers"?

"I always tell people: when it comes to real estate, trust no one and question everything. Ask yourself who's saying it, why are they saying it, and do they have a vested interest?" says Ryder.

**"It staggers me that people still read [newspapers] with the expectation that they're getting property advice"**

it's usually a case of misinformation or misdirection, according to property expert Associate Professor Angelo Karantonis of the University of Technology, Sydney's School of the Built Environment. "In some cases the authors are ignorant and pretend they know what they're talking about. But the fact is some of them do it deliberately with hidden agendas."

"I used to issue a challenge to first-year students. I'd ask them to bring me any paper and show me how they'd tell one person that now is a great time to sell and also explain to a vendor why they have to take a lower price, all based on the same paper."

A recent story published in *The Courier Mail* referred to flood-damaged properties hitting the market. Property editor Michelle Hele wrote: "James Freudigmann is one of those potential buyers undeterred by flood damage. I have looked at a few properties (flood-affected) around the place but you have to be pretty quick," he said."

What Hele didn't disclose is that Freudigmann is the Queensland director of property advisory company Capital 360, and according to its website Freudigmann uses his "extensive knowledge [of property]" to "exceed his clients expectations". When CHOICE contacted Hele for comment, she told us that "this story was about potential buyers of a flooded property and Mr Freudigmann's stated intention to live in it, not whatever his business may be".



A similar article, "Deluged Brisbane houses cheapest of the capitals", published in *The Australian* on 28 April, 2011, stated: "For Brisbane potential home buyer Laura Kavanagh, the low prices have provided a great opportunity. Ms Kavanagh and other buyers said that the doubts over future levels of interest rates were not really a big factor in their decision to enter the market. 'I don't think they will go up, but even if they did it's still a good time to get into the market,' she said." The fact that Kavanagh is an agent with Place Real Estate, one of the largest agencies operating in Brisbane, is not disclosed.

Andrew Fraser, the author of the article, blamed this on a tight deadline. "The story was based on a report that stated Adelaide prices were going up while Brisbane's were going down. I was asked at 4pm to urgently find a house buyer for the story so I contacted a real estate agent. The person they found me worked at the agency but was also a house buyer.

"I would have disclosed that she was a real estate agent but I didn't think it was important because she was in there as a buyer. And the story was not about her – the reference to her is only in the final three paragraphs."

The practice of not disclosing vested interests in these "everyday" men and women is widespread. CHOICE has seen examples in the *Sydney Morning Herald*, while the MacroBusiness blog, which provides alternative views on investments, has uncovered the practice at *The Courier* (Ballarat), *The Australian*, *Sydney's The Daily Telegraph*, *The Courier Mail*, *Adelaide Now* (website of the *Adelaide Advertiser*) and others.

"The consumer knows when they're reading any commercial section

of the publication – be it health, cars or real estate – that it's advertorial," says Smith. "You put hard news in the front of the paper. It's preposterous to think that commercial sections would be unbiased! If you were to [have an unbiased section], no real estate agent would submit any editorial."

But many readers aren't aware of the blurry line between editorial and advertising. "It does mislead people and often it's done deliberately," says Karantonis.

"People believe what they read in the papers," says Ryder. "If you repeat the lie often enough people will accept it as the truth. Often people aren't even aware of where their attitudes come from – they just absorb media attitudes because they're there every day, and they'll repeat misconceptions as fact."

## Speaking out

The relationship between media and real estate is apparently so cosy in some instances that big spenders are kept happy at all costs – even if it means forcing journalists to toe the line or rejecting competitors' advertising dollars.

"When I was first property editor at *The Courier Mail* in the 1980s there was a strong separation between advertising and editorial," says Ryder. "But when I went back in 1997 I found things had changed quite dramatically – the major advertisers had developed a major influence.

"I had a weekly column and I wrote something criticising the auction process. That caused some high-level complaints from the real estate industry to senior people at the paper. I had to resign because I wasn't able to write freely without being dictated to by the real estate industry.

"I know through speaking with journalists over the years that they feel

constrained. They know they will lose their job if they don't toe the line, so they don't write anything harshly critical of the industry, which is a major shame from the consumer's point of view."

Neil Jenman spent a decade working as a real estate agent before turning to public speaking and publishing on ethics in real estate. He now runs an accreditation business that promotes agents who comply with his ethical standards.

"For 10 years the local newspapers haven't allowed me to advertise my books," he says. "Cumberland, News Ltd, the Leader newspapers in Victoria, and Quest in Brisbane have outright banned me."

Sure enough, CHOICE has seen a copy of a memo sent to all branch managers and real estate sales consultants of Cumberland Newspapers stating: "Please be on the lookout for any attempt to have advertising for [Jenman's] book *Real Estate Mistakes* placed for publication... any ads promoting this publication are *not* to be accepted for publication in any Cumberland newspaper" [Cumberland Newspapers' emphasis, not ours].

Smith admits to being one of the architects of this memo. "The view we held at the time was that we needed to be careful of his material because it was just sensational headline type stuff to promote his own brand. We didn't refuse to advertise the books completely. That was the initial advice, but we were happy to take those ads in the general news, just not in the real estate section."

Greg Cooper from Cooper Newman Real Estate in Burwood, Victoria, has also had his advertisement rejected, this time by Melbourne's *Whitehorse Leader* newspaper on 2 September 2011. The reason? Sellers are often contractually bound to reimburse real estate agents for advertising, regardless of whether a property sells. Cooper, who is accredited by Neil Jenman, offered to pay the bill, stating: "Trapped with an advertising bill and no sale? Talk to us about a solution."▶

**"You put hard news in the front of the paper. It's preposterous to think that commercial sections would be unbiased!"**  
– Alan Smith

**"In some cases the authors are ignorant and pretend they know what they're talking about. But the fact is some of them do it deliberately with hidden agendas"**  
– Angelo Karantonis



"They believed readers might view those words as a negative toward advertising," says Cooper. "Two hours before deadline, they said they would run it provided we removed the words, which I refused. A lot of our ads have been blocked. I would say it was likely other agents complaining. It's because they have more advertising."

The *Whitehorse Leader* confirmed to CHOICE that the advertisement could not be run unless Cooper agreed to remove the reference to advertising costs.

### The cult of personality

The debut of a new haircut is not normally newsworthy. Unless of course you're a celebrity like Natalie Portman, Brad Pitt or Anthony Toop.

Wait – Anthony who?

"Move over David Hasselhoff, South Australia has its own bike-riding, blow-waved bloke setting tongues wagging," proclaimed the *Adelaide Advertiser's* website *Adelaide Now* on 26 June 2011. "After six months' hiatus from his clean-cut, executive life as boss of Toop & Toop Real Estate, Anthony Toop has returned to town with a head of flowing hair, rendering him almost unrecognisable."

And just in case you thought this was a one-off, on 23 November 2010, the same site announced: "For real estate agent Phil Harris, 2010 has been a year of professional and personal milestones. In January, Mr Harris opened his own

agency, Harris Real Estate, with five sales staff. Today, Mr Harris employs 22 people and in the first seven months of operation the company sold more than \$100 million worth of residential property. Personally, Mr Harris celebrated his 30th birthday."

Why is it that a new haircut or the one-year anniversary of a business and a birthday is news in a capital city newspaper? You need only look

to the back pages to find out, says Karantonis.

"Take note of the names of the agents and agencies they're referring to. Then have a look at the ads at the back – the ones who advertise a lot are the ones who get the write-ups. If

Joe Bloggs Real Estate

advertises a quarter of a page

once in a blue moon, he won't get

editorial." Toop & Toop and Harris Real Estate are significant advertisers with the *Adelaide Advertiser*.

"It used to frustrate me," says one former real estate agent. "They had a preference for those who advertised more over the different papers."

The impact of these seemingly harmless profiles is powerful. After all, who would you choose to act as your agent? "It would instinctively be someone you've seen in the paper all the time, because he seems like an active person. You wouldn't go to Joe Bloggs – what hope does he have? Success breeds success," says Karantonis.

And there are other perks to newspaper advertising if you're an agent. CHOICE has learnt that Melbourne's *The Age* newspaper funds an annual overseas trip for agents who meet certain sales targets.

"We do run an incentive program, a part of which is an overseas trip, and we've been running it for a number of years," confirms Tony Blamey, General

**"Papers have for a long time paid bonuses to the agencies for their advertising, sometimes in the form of perks such as overseas junkets"**



Manager for real estate at Fairfax. "But that's run by the commercial part of the organisation, not the editorial section... [Real estate agencies] opt in to the program and it's based on a corporate advertising commitment. It's an opportunity for networking and there's a range of activities."

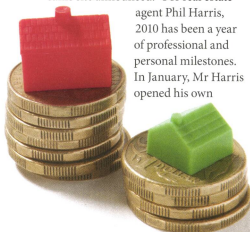
But Ryder argues it's nothing more than a freebie. "There are various kickbacks. The papers have for a long time paid bonuses to the agencies for their advertising, sometimes in the form of perks such as overseas junkets. The irony is that the agents don't spend their own money on the advertising, they spend vendors' money. It's a major rort that's existed for a long time."

### CHOICE verdict

The distinction between advertising and editorial in the real estate press is largely absent – our examples may be just the tip of the iceberg.

While the industry has argued that the property section is commercial – and the blurring of journalism and marketing is not unique to the real estate section – this distinction may not always be clear to consumers. We think it's unfair that readers have to second-guess whether what they are reading is objective reporting or puff pieces influenced (or in some cases written) by advertisers. Many wouldn't even realise that they should be second-guessing in the first place.

In the spirit of open and transparent reporting that helps consumers confidently make one of the biggest investments of their lives, CHOICE would like to see the real estate journalism industry lift its game. ■



# Lost treasure hunt

**Brendan Mays** consolidates his super.

**L**ike many people, I've accumulated a few different super accounts over the years. Knowing that Aussies lose more than a billion dollars in fees, missed earnings and lost payments each year, I decided it was time to consolidate my super into one account. Luckily, it's not as difficult as you may think.

## 1 Find your lost money

The ATO's SuperSeeker tool is a good place to start searching. You can access it by searching [ato.gov.au](http://ato.gov.au) or by calling 13 28 65. I used the online tool, and all you need to do is put in your tax file number to search. I was surprised to find one lost account that had been deposited into an Eligible Rollover Fund (ERF, a fund used to hold lost super) to add to the two additional accounts I knew I wanted to consolidate.

While I was at it, I checked for lost money with my state's revenue body

(see below), and this also uncovered some unclaimed funds. A phone number or other contact details were provided for both the ERF and unclaimed money, and after verifying some details, I became \$500 richer from money I otherwise didn't know about.

## 2 The paperwork

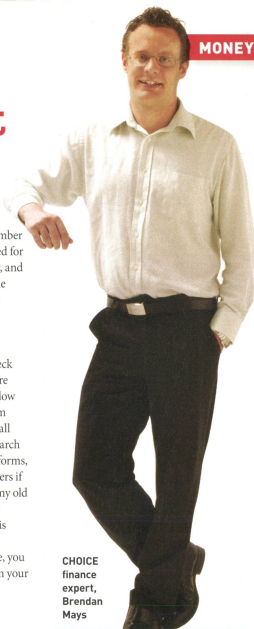
Before making any transfers, check for withdrawal fees, especially if you're transferring from an account with a low balance. I filled out the forms to claim my lost money and withdraw the small amount from the ERF. The online search tools directed me to the appropriate forms, but there are customer service numbers if you need any help. I then contacted my old super funds and updated my address details so that they were current – this should save time by making the old accounts easier to verify. At this stage, you should also collect the following from your previous fund:

- Member number
- Fund phone number
- Fund ABN
- Superannuation Product Identification Number (SPIN, available from [spindirectory.com.au](http://spindirectory.com.au))

Finally, I contacted my current super fund, which I want to be my only provider. Like most funds, they were happy to organise the transfers from my old accounts as long as I provided the details listed above and filled out a form.

## 3 Certifying, sending and profit

It took me less than half an hour to fill out the four forms I needed to complete. I had to provide documentation to prove my identity (see right), and these documents must be certified. A JP, post office employee, police officer or other specified person can do this for you. ■



CHOICE  
finance  
expert,  
Brendan  
Mays

## Find your \$\$\$

- **ACT: Public Trustee**  
[www.publictrustee.act.gov.au](http://www.publictrustee.act.gov.au)
- **NSW: Office of State Revenue**  
[www.osr.nsw.gov.au](http://www.osr.nsw.gov.au)
- **NT: Treasury**  
[www.nt.gov.au/ntt](http://www.nt.gov.au/ntt)
- **Qld: Public Trustee**  
[www.pt.qld.gov.au](http://www.pt.qld.gov.au)
- **SA: Department of Treasury and Finance**  
[www.treasury.sa.gov.au](http://www.treasury.sa.gov.au)
- **Tas: Department of Treasury and Finance**  
[www.treasury.tas.gov.au](http://www.treasury.tas.gov.au)
- **Vic: State Revenue Office**  
[www.sro.vic.gov.au](http://www.sro.vic.gov.au)
- **WA: Department of Treasury**  
[www.treasury.wa.gov.au](http://www.treasury.wa.gov.au)

## What will I need?

You'll have to provide identification when consolidating super or tracking down other lost money. In general, you're most likely to need:

- Your tax file number (TFN)
- Photo identification, such as a passport or driver's licence
- Letter from the government, such as tax advice from the ATO or council rates notice
- Health care card, credit card or other form of secondary ID
- Utility bill with your current address details

Most funds offer other alternatives too, which you'll find when you get to your fund's form.

# Creature comforts

If you count your furry friends as part of the family, it's worth having a health care plan for them. **Brendan Mays** takes you through the options.

## Nutshell

- We review and compare pet insurance plans to discover the best value and expose common traps.
- Pet insurance is not for everyone. We check out some other ways to be financially responsible for your pet.

Australia has one of the highest levels of pet ownership in the world. There is more than one cat or dog for every five people, and millions of other companion animals on top of those. For many of us pets are an important part of our lifestyle, and we

often think of our animal friends as part of the family.

However, pet ownership can also be expensive. The Australian Companion Animal Council says we spend more than \$6 billion a year looking after our pets, and aside from the ongoing costs, vet bills can represent a significant portion of those expenses. It makes sense to have a plan to deal with your furry friend's medical costs, and there are multiple ways to provide cover.

### The basics

Pet insurance is mostly focused on cats and dogs, so these are the types of policies we've reviewed. Insurers cover other pets, but you'll need to look around.

**Accident and illness cover** is fairly self-explanatory (the other option is accident-only). See our table (page 28) for accident and illness policy comparisons.

Accident-only tables are available online at [choice.com.au/petinsurance](http://choice.com.au/petinsurance). **Routine care** is typically an additional option. It provides a small benefit for things such as check-ups and vaccinations, but don't expect to receive much more than \$150. Until insurers are willing to add more value, we'd suggest saving your money and avoiding this option.

**Premiums** for most products are risk-rated, which means the age or breed of your pet can affect your premium. You can lower premiums by increasing the excess (which ranges from \$100-\$500), but it is payable per condition per policy year. Most policies require a co-payment in the event of a claim, so factor this in too.

### Ongoing conditions

Most policies on the market restrict claims on chronic illness to a lifetime benefit amount (often the maximum annual benefit limit in the year the condition is discovered). Once your claims reach the lifetime limit threshold, you won't receive any more money for that condition. This is why a high annual limit can be beneficial.

Petplan is the only provider that does not restrict claims to a lifetime limit for ongoing conditions, which could be worthwhile if your pet develops a condition that requires a lot of treatment. There is a catch, though - Petplan will only reimburse you for 65% of the bill (plus





excess) after your pet turns 10 (or seven for some breeds). Although you can claim a higher amount back in total, you will also have to cover more expenses.

In addition, insurers exclude pre-existing conditions. This is fair enough, although any further treatment to the affected body part is also often excluded. A skin condition, for example, can see any future skin problems excluded from cover even if it's a different illness. You can have this waived after 12-18 months if there are no further issues, but even so it's a very restrictive approach that can greatly reduce value. To avoid problems, get your vet to give your pet a clean bill of health before signing up to an insurer.

### Industry issues

There are two underwriters in the industry. Allianz operates two brands, Petplan and Pet Cover, while Hollard underwrites the remaining ones. It's not unusual to see a single underwriter operating several brands in Australia, but unlike other types of insurance, there is

not a great deal of difference between pet-insurance products. This lack of competition could in part be attributed to the extremely low portability of pet insurance – once your pet reaches age eight or nine, no new insurer will provide cover. Before age nine, any previous illness becomes excluded as a pre-

existing condition unless you have it waived by a vet. In short, to maximise your cover, you need to pick an insurer and stick with them, right or wrong.

Apart from the need for insurers to keep premium prices affordable, there's little to encourage competition in the industry: Private human health insurers take on pre-existing conditions but use waiting periods and loadings, while pet insurers have so far managed to avoid making it easier to switch.

While you can't directly compare the two industries, we nonetheless believe pet insurance has room for improvement. ▶

**\$6bn**

The amount Australians spend on looking after pets each year

**5:1**

The ratio of people to pets (domesticated cats and dogs) in Australia



### COST OF CLAIMS

|                                | Average claim (\$) | Highest claim (\$) | Average claim cost increase since July 2009 (%) |
|--------------------------------|--------------------|--------------------|-------------------------------------------------|
| <b>Multiple fractures</b>      | 2564               | 11,376             | 85.7%                                           |
| <b>Cancer</b>                  | 1354               | 25,700             | 75.8%                                           |
| <b>Gastroenteritis</b>         | 573                | 9071               | 100.5%                                          |
| <b>Snake bite</b>              | 1619               | 11,035             | 106.5%                                          |
| <b>Pneumonia</b>               | 1588               | 7275               | 68.9%                                           |
| <b>Arthritis</b>               | 379                | 5090               | 146.2%                                          |
| <b>Diabetes</b>                | 1626               | 16,865             | 508.9%                                          |
| <b>Ear infection</b>           | 234                | 8780               | 47.5%                                           |
| <b>Cataracts</b>               | 2178               | 12,172             | 146.4%                                          |
| <b>Dermatitis</b>              | 230                | 4655               | 56.3%                                           |
| <b>Urinary tract infection</b> | 538                | 7551               | 110.0%                                          |

**Notes:** A sample of pet insurance claims from The Hollard Insurance Company during the period 1 July 2010 to 30 June 2011. Figures include the cost of medicines, vet fees and other associated expenses.

## CHOICE RECOMMENDS

We look at premium prices using the lowest possible excess and excluding discounts for a range of cats and dogs, including different ages and breeds. We then calculate the overall cost of insurance including ongoing premiums, co-payments and excess amounts in a range of high- and low-cost scenarios. We also consider policy features, cover and exclusions to come up with recommendations on products we believe deliver the most value. Pay close attention to the percentage co-payment amount, as this will have a big effect on the value if you

need to make a claim. For example, Petplan's percentage share amount and additional policy features earn it several recommendations. But after your pet

turns 10 (or seven for select breeds) and the percentage share drops to 65% or 50%, the overall value goes down when you need to claim.

#### ACCIDENT ONLY

#### RECOMMENDATIONS

**Cat**

Petplan Budget\*\* (100% co-payment), Petsecure (85% co-payment), Prosure

**Dog**

Bow Wow Meow, Pet Insurance Australia, Petsecure (85% co-payment)

#### ACCIDENT & ILLNESS

#### RECOMMENDATIONS

**Cat**

Petplan (all policy levels\*\*, 100% co-payment), Prosure Gold, Woolworths Standard

**Dog**

Medibank Silver, Petplan (all policy levels\*\*, 100% co-payment), Petsecure (85% co-payment), Prosure Gold and Platinum

We don't factor in future premium price fluctuations or costs of high-risk breeds. \* Accident and illness policy, but still represents best value. \*\* Standard policies proved best value in our cost modelling, followed by Supreme and Budget.

## Do you need it?

Pet insurance can be a worthwhile investment for some owners, especially if you're the type to spend up big on your pet. If you have a particularly active or accident-prone pet, it can help you cover costs that would otherwise be unaffordable. Paying an annual premium is also a good way to avoid facing a vet bill blow-out.

Premiums for cats average about \$200 per year for accident policies and \$410 for accident and illness. For dogs, accident policies are about \$390 for

common breeds, but more for "high-risk" breeds such as bulldogs, accident and illness policies average about \$550 annually.

## What are the alternatives?

Instead of paying an annual premium to an insurer, you can self-insure by starting a pet-expenses fund. This option may suit you better if you're on a tight budget, but it requires discipline. There's no right or wrong amount to put aside, but for a good level of cover you should aim to build up a fund of a few thousand dollars

at least (look at the average claims in the table on page 27 to get an idea of costs).

Another option is to have an emergency credit facility to help pay for any vet bills. While going into debt is far from ideal, a low-rate credit card may allow you to cover any unexpected costs without jeopardising your pet's health. You don't have to buy pet insurance to be a responsible or caring pet owner, but you should have a plan to cover any expenses, especially vet bills. Your healthy and happy pet will thank you for it. ■

| ACCIDENT AND ILLNESS POLICIES |                                   | BENEFITS                     |                            | COVER OPTIONS                                        |                                                                                  |                             |        | BENEFIT SUB LIMITS   |                         |                                                         |
|-------------------------------|-----------------------------------|------------------------------|----------------------------|------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------|--------|----------------------|-------------------------|---------------------------------------------------------|
|                               |                                   | Maximum annual benefit (\$)  | Amount of bill covered (%) | Motor vehicle incidents, burns, electrocution, falls | Snake bites, allergic reactions, fractures, ligament and tendon injuries, wounds | Swallowing foreign objects* | Dental | Paralysis tick bites | For tick paralysis (\$) | Emergency boarding costs if you are hospitalised (\$)** |
| 1300 Insurance Pet Protect    | Comprehensive Protect             | 10,000 or 15,000             | 75                         | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 500                     | 500                                                     |
| AFS-PetMed                    | Plan B                            | 12,500 (C)                   | 70 or 80                   | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | No sub limit            | 500                                                     |
| Bow Wow Meow                  | Comprehensive Plan (A)            | 8000 or 12,000               | 80                         | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 500                     | 500                                                     |
| HCF Pet Insurance             | Pet Premium                       | 12,000                       | 80                         | ✓                                                    | ✓                                                                                | ✓                           | (E)    | ✓                    | 1000                    | 1000                                                    |
| InsuranceLine                 | Accident + Illness                | 10,000                       | 80                         | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | No sub limit            | 240                                                     |
| Medibank Pet Insurance        | Silver Paw Cover                  | 12,000                       | 80                         | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 1000                    | 1000                                                    |
| Medibank Pet Insurance        | Gold Paw Cover (B)                | 15,165                       | 80                         | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 1200                    | 1200                                                    |
| Petcover                      | Pet Insurance                     | 7500                         | 100                        | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 4000                    | 0                                                       |
| Petplan                       | Budget                            | 9,000 (cat)<br>10,000 (dog)  | 50, 65, 75,<br>100 (D)     | ✓                                                    | ✓                                                                                | ✓                           | ✓      | (F)                  | ✓                       | No sub limit<br>500                                     |
| Petplan                       | Standard                          | 10,000 (cat)<br>15,000 (dog) | 50, 65, 75,<br>100 (D)     | ✓                                                    | ✓                                                                                | ✓                           | ✓      | (F)                  | ✓                       | No sub limit<br>500 (cat)<br>1000 (dog)                 |
| Petplan                       | Supreme                           | 15,000 (cat)<br>20,000 (dog) | 50, 65, 75,<br>100 (D)     | ✓                                                    | ✓                                                                                | ✓                           | ✓      | (F)                  | ✓                       | No sub limit<br>1000 (cat)<br>2000 (dog)                |
| Petsecure                     | Accident & Illness Cover          | 12,000                       | 75 or 85                   | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 500                     | 1000                                                    |
| Pet Insurance Australia       | Comprehensive Cover               | 15,000                       | 80                         | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 1000                    | 500                                                     |
| Prosure                       | Gold Cover                        | 12,000                       | 80                         | ✓                                                    | ✓                                                                                | ✓                           | ✓      | (G)                  | ✓                       | 1000<br>800                                             |
| Prosure                       | Platinum Cover†                   | 14,150                       | 80                         | ✓                                                    | ✓                                                                                | ✓                           | ✓      | (H)                  | ✓                       | 2000<br>1000                                            |
| Real Pet Insurance            | Standard Accident & Illness Cover | 12,000                       | 75                         | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 1000                    | 1000                                                    |
| Real Pet Insurance            | Premium Accident & Illness Cover  | 12,000                       | 80                         | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 1200                    | 1200                                                    |
| RSPCA                         | RSPCA PetCare Plus                | 6800                         | 70 or 80                   | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 500                     | 500                                                     |
| RSPCA                         | RSPCA PetCare Premium (B)         | 8935                         | 70 or 80                   | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 1000                    | 500                                                     |
| Woolworths Pet Insurance      | Standard Cover                    | 10,000                       | 80                         | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 1000                    | 1000                                                    |
| Woolworths Pet Insurance      | Comprehensive Cover               | 12,000                       | 80                         | ✓                                                    | ✓                                                                                | ✓                           | ✗      | ✓                    | 1500                    | 1200                                                    |





Melissa's beloved sheepdog, Madeline



### Callous claims procedure

If your pet dies and you've made a claim, you will need to continue paying the policy in full for the rest of the contract period. While this is stated in the terms and conditions, it still leaves some feeling angry at a time of sadness.

"My 12-year-old old English sheepdog Madeline died six days after the new policy period started," CHOICE member Melissa tells us. "The claim for expenses was promptly paid by the insurer, which was appreciated. But you don't get to cancel the policy as at the date of death – they deduct the premium for the whole year."

### COUNTS AND SPECIAL OFFERS

#### Special offers

\$500 travel rewards

10% discount for HCF members

10% discount for Medibank Private members

4 weeks free sign-up bonus at most vet clinics

4 weeks free sign-up bonus at most vet clinics

4 weeks free sign-up bonus at most vet clinics

10% discount for assistance dogs/pensioners

Member privileges program

\$50 cash back if no claims in 12 months

10% cash back (K)

1 month free with RSPCA adoptions

Everyday rewards points

### Included

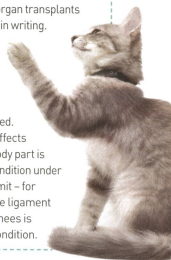
- Hereditary or congenital conditions.
- No waiting period is applicable for accidents.
- Strays without a veterinary history (but you'll need to get them a check-up).
- Illness caused by endoparasites and ectoparasites such as tapeworm (as long as there is no negligence or missing vaccinations).
- Essential euthanasia.
- Accident and illness policies will cover patella luxations and elbow dysplasia (accident-only policies do not cover these).
- Accident and illness policies will cover illnesses such as skin conditions and diabetes (subject to policy limits).
- Petplan's Standard and Supreme plans will pay a benefit for death from illness, straying and reward money for lost pets. Limits apply; check policy.

### Exclusions and restrictions

- Pre-existing conditions (all will allow you to waive pre-existing conditions after 12-18 months with vet approval).
- All except Petplan restrict chronic conditions to the maximum annual benefit in the year the condition occurs.
- No providers except Petplan provide

third party liability for your pet. You may be able to get cover through your home and contents provider, so check.

- 21-30-day waiting period for illness. All providers except Petplan place six months for cruciate ligament injuries (unless waived by vet).
- Minimum age for cover is eight weeks, and maximum is nine years (no maximum on accident-only cover).
- You must insure with Petplan for three years before pets turn 10 to ensure continued cover.
- Stem cell and alternative therapies and voluntary euthanasia excluded.
- All providers except Petplan exclude prosthetics and organ transplants unless agreed to in writing.
- Conditions that can be prevented by a vaccination are excluded.
- Breeding and obstetrics excluded.
- A condition that affects more than one body part is treated as one condition under the one benefit limit – for example, cruciate ligament trouble in both knees is treated as one condition.



**Notes:** Benefits are paid as a reimbursement less any excess or co-payment payable. \* Cover applies to endoscopic removals and is available once per insurance period, except Petplan which is unlimited. \*\* Conditions apply, see policies for details. (A) Major Medical plan also available, which is the same policy but with a \$500 excess option. (B) Comes with routine care cover. (C) \$7000 accidental injury cover + \$5500 illness cover. (D) 50% and 60% are for pets age 10 and older; 75% and 100% are for nine and under. (E) Optional extra. (F) Except retained or misaligned deciduous teeth. (G) \$1000 sub-limit; two-year waiting period. (H) \$2000 sub-limit, two-year waiting period. (J) 5% discount for first, 10% for second, 15% for thirds and capped thereafter at 15%. (K) After the first 12 months.

# Smarter shopping

A smartphone can be your very own digital personal shopper, says **Rosalyn Page**.

**T**he retail experience in Australia has altered in recent years as people go online to shop. Despite this, many consumers still favour bricks-and-mortar retailers where they can see and feel the goods and access prices, expertise and personal service. The good news is that consumers who still enjoy traditional shopping don't need to be left out of the bargain hunting.

Tech-savvy consumers are making the smartphone the middleman in real-world retail shopping and opting to compare prices

and research products with internet-enabled phones. To do this, they're using phone shopping apps that can help find good deals, compare prices and collate shopping lists before hitting the shops. A smartphone can also connect to quick response (QR) codes (see below) that provide a direct link to a website to find out more about a product or company. Logging in to social media platforms such as Facebook can reward shoppers with special deals and freebies for in-store shopping.

## Ads all about you

As social media sites such as Facebook have developed and gained greater prominence in people's lives, advertising is keen to be part of it too. Social media is all about interacting with others and sharing ideas, interests and personal preferences, and retailers are realising the power of having their brand or business associated with someone's identity or conversation online.

Facebook encourages people to "check in", which reveals the whereabouts of the person to their friends online. Some stores and shopping centres are luring people to check in with discounts on products or services, free vouchers or other special deals. Fast-food outlets, banks, mini-marts and coffee shops are a few of the businesses offering check-in specials through coupons delivered to your phone while at the same time receiving online promotion of their brand or store.

QuickerFeet, one of the first of its kind in Australia, is another type of location-based advertising that uses a specific app instead of a social media platform to offer shopping deals. The app finds your location through the phone's GPS and sends special offers to the handset. The shopper then shows the



### Nutshell

- Use your smartphone to compare prices in store.
- Smartphones can be useful tools for saving legwork when shopping.

message in-store for a discount, and deals can also be shared via Facebook and Twitter. The QuickerFeet app is used in conjunction with shopping centres and individual retailers as well as cinemas, entertainment venues and even a hotel chain.

## Smartphone scanning

One of the easiest ways to turn a smartphone into a useful shopping guide is through QR codes, a type of graphic barcode. Shoppers scan the QR code with their smartphone's camera to activate its web browser and open a mobile version of a website that relates to the product or company. Japan was one of the first places to use QR codes, and over there they appear on posters to promote new movies, fast-food packaging to show nutritional information, in magazines to link to their website and in shopping centres. Along with Australia, Europe and the US are seeing the growth of QR codes.

The application of QR codes is varied. They can be used to download ringtones, play advertising videos, show a movie preview, provide exhibition information, act as a virtual business card, give TV show information and even allow people to make appointments with doctors and beauticians. In the US, QR codes are printed on Ethical

## QR codes in action

**T**he QR code below will take you to the new CHOICE Mobile site, so you can browse our product reviews while on the move. You can download a free QR code reader app from the App Store or Android Marketplace. Simply open the app, aim your phone's camera at the code and the phone will do the rest.





Bean coffee bags and work with the smartphone app to give country of origin and producer information for the coffee beans.

In Australia, wine companies have started using QR codes on wine bottles, while some real estate agents have put them on display ads to link to more information about the property. Some restaurants are adding QR codes to their menus or shop fronts; these link to their website so diners can find out more about the food or opening hours. Concert tickets, bus shelters, flyers and posters are just some of the other places where QR codes are used here.

Some security experts, however, have expressed caution that fake QR codes could direct users to malicious websites or infect a smartphone with a virus. Exercise the same caution with QR codes and mobile browsing

Woolworths supermarkets have smartphone apps that allow you to create a shopping list and view specials, product listings and even recipe ideas. Some large stores including Ikea, Target and Priceline have developed their own apps that allow shoppers to look for particular items, find a store or browse the catalogue. Store-specific apps are usually free, while the apps for deals and shopping services can cost a few dollars.

Apps such as Lasoo are like a virtual mailbox full of catalogues to compare prices at different stores, while the Groupon app promotes daily specials. Getprice's app shows a range of prices for an item, while Sydney Vouchers has discount offers for

apps created by international online retailers. A few examples are the Amazon Mobile app, StrawberryNET app for cosmetics and Etsy app for handmade bags and crafts.

NSW Fair Trading has created the ShopSmart app while Consumer Affairs Victoria has released the MyShopRights app for iPhone and Android smartphones, both of which provide easy access to information about warranty, lay-by and refund rights. If you're interested in buying local, check out the BuyAustralian or BuyAusMade apps. There are also apps such as Shop Ethical! that rate products in terms of environmental, human rights and other criteria, and Fairly Local, which shows nearby shops and restaurants with Fairtrade products.

Another type of smartphone app, examples of which are Scan2List (designed for Australia), Wunderlist and ShopShop, uses text entries and/or barcode scanners to find product listings and photos that create shopping lists that can be saved, printed and emailed. The number of locally developed shopping apps with Australian products, prices and deals is growing, but the bulk of the barcode scanning and shopping comparison apps still relate to US pricing and availability. ■

## The number of locally developed apps with Australian products and prices is growing

as with other internet activity and don't give out financial or personal information through a mobile site that you've accessed with a QR code. Also be alert to offers that sound too good to be true.

### Avalanche of apps

Many of these apps are available for the popular iPhone, but shoppers with Android-based smartphones won't be left out as the apps grow in variety. Aldi, IGA, Coles and

local products, attractions and services. (Cairns Vouchers and Brisbane Vouchers apps are also available.) The Mall Maps Australia and ShopNode Australia apps list nearby shopping centres or show malls.

Foodies in Sydney and Melbourne can look up where to find truffles and other gourmet items with the SMH and Age Good Food Shopping Guides apps. If you're keen to compare local in-store prices against overseas prices while the dollar is high, you can use



## Hair today, gone tomorrow?

While permanent hair reduction is a great solution for some, **Kate Browne** exposes a number of untrained operators aiming lasers at the public's body parts.

**W**alk past your local beautician, flick through a women's magazine or check out the latest deals on group buying sites and you'll see the ads – "50% off legs", "underarms on sale", "get a free top lip with any other body part" and so on. While they sound a bit gruesome, the ads are for laser hair reduction.

With our interest in cosmetic procedures continuing to grow, one popular practice is hair removal. In the past, the options were shaving, waxing, chemical depilatories or electrolysis. Shaving means prickly regrowth, chemical depilatories are messy and smelly, waxing is painful and electrolysis can only treat one hair at a time.

Enter laser and intense pulsed light (IPL) hair reduction. The marketing hype will tell you that, with a few sessions and slight discomfort, you can be hair-free forever. It's relatively quick and can treat large sections of the body in a single appointment. To anyone who has battled with unwanted facial or body

hair this sounds like the perfect solution. But is it really all it's cracked up to be?

### Does it work?

All the experts CHOICE spoke to agree that laser or IPL treatment can be very

effective in the hands of an experienced and trained operator. "It's the best way to reduce unwanted hair, provided of course you're a suitable candidate," says Melbourne dermatologist Dr Philip Bekhor.

### How it works

**L**asers and intense pulsed light (IPL) devices – which are not technically lasers but work on a similar principle – can be used for hair reduction and skin treatments such as removing spider veins, improving skin tone and to remove tattoos.

Permanent hair reduction involves the use of either a single wavelength of light (laser) or a flash of light containing hundreds of wavelengths (IPL or broadband light BBL) to target the melanin within the hair follicles,

heating and damaging the follicles in an active growth cycle.

Because lasers and IPL target melanin, only hairs that have colour can be treated, so white and grey hairs won't respond. The success of the treatment depends on your colouring even if you don't have grey hairs, with laser generally working best on fair skin and dark hair. Fairer skin and red hair will respond to a lesser degree, and those with darker skin can be treated, but only with a great deal of care.

## Permanently temporary

Many ads claim laser or IPL treatments can leave you permanently hair-free. Sydney dermatologist Dr Phillip Arteni says many operators have been quite loose with their definition of the word "permanent" in their advertising.

"You cannot permanently remove every single hair from a treated area," he says. "In my opinion, 10%-20% of hairs will continue to grow, albeit in a finer, slower way, and more importantly, many hair follicles can and will recover from the laser injury with time. A better term is 'permanent hair reduction'."

## Free-for-all

With the exceptions of Queensland, Tasmania and WA, the laser industry is unregulated, and powerful medical lasers and IPLs are accessible to untrained and inexperienced personnel. Even in the states with some legislative controls, clinical application training isn't covered.

"It's the Wild West," says Associate Professor Lee Collins, director of the medical physics department at Westmead Hospital in Sydney who also conducts laser safety training. "Anyone in the unregulated states can buy a laser or IPL machine and start treating people. The more people realise there's a quid to be made, the more people are going to get into it without the appropriate training."

Many medical professionals we spoke to say consumers who put themselves in the hands of an untrained, inexperienced operator are putting themselves at risk, financially and physically. And sure enough, many consumers who've had treatments told us they've spent a small fortune for little result. This is likely due either to being an unsuitable candidate in the first place, or being treated by an operator who hasn't chosen the best wavelength or device for the patient.

## Manicure, pedicure, burns?

Bekhor says he is seeing a steady increase in patients presenting with complications caused by inexperienced laser and IPL operators – from hyper- and hypopigmentation to severe burns and scarring. The NSW Statewide Burn Injury Service recorded six patients who required treatment for serious burns in the past year from laser and IPL, while Beth Wilson, Health Services Commissioner of Victoria,

says her office has also received complaints from members of the public about inexperienced operators.

Dr Sharron Phillipson also sees about one patient a month who has had a bad experience elsewhere. While she's quick to point out that lasers can be safe and effective, she says it is "the uncontrolled use in the cosmetic area that is the worry". Another concern is that untrained operators may be clueless if things go wrong, and in some instances compound the problem by dispensing misguided advice.

In Victoria, the Health Services Commissioner investigated an incident where a woman had IPL treatment on her legs at a salon that resulted in painful dark purple stripes. When she went back the next day in more pain, she was assured it would "go away in a couple of months". She was even told she should visit a solarium or sit in the sun to even up her skin tone. A GP later diagnosed the woman with first-degree burns and depigmentation, which is not reversible.

Bekhor once had a mother bring her child to him with complications after a beautician tried to remove a birthmark with an IPL device.

## THE GOOD

"I had dark facial hair on my upper lip that I was very self-conscious about. I had a number of laser treatments and most of the hair is gone now." – Liz

"I had two sessions of laser hair removal at a reputable company. Even with just two there was a significant permanent difference." – Lyn

"I suffered from shaving rash on my neck. I had laser hair removal done through a dermatologist with trained nurses operating the laser. After one treatment I had a noticeable improvement. After four I no longer have a shaving rash or a sore neck from infected hairs if I don't shave." – Craig

He says many operators buy the machines initially for hair removal but start trying other treatments. "Many women might go to the same salon for years, build a relationship with their beautician and be inclined to let them try something new. But these treatments are far more dangerous than having your nails done."

## The rise of hair removal devices

The number of walk-in hair removal clinics and beauty salons offering to zap your unwanted hairs seems to have exploded, and many push sales offers and pre-pay ▶

## An intense pulsed light (IPL) handset





## THE BAD

"The beautician was skipping shots on me and charging the full price. It made me look like a zebra and it all grew back eventually anyway."  
- Cheryl

"I had about 10 sessions; it slightly reduced the hair initially, but now 12 months later it's back as it used to be."  
- Katie

"It was very expensive and while it seemed to be doing a good job, as soon as I stopped having sessions the hair grew back."  
- Evelyne

discounts. In the past, laser and IPL hair removal was primarily the domain of dermatologists and doctors and was expensive. These days, you could be offered a similar treatment in your local shopping centre for significantly less. So what's changed and why?

The main reason is the cost of the equipment. In the past these devices were extremely pricey; one doctor told CHOICE she paid \$300,000 for one machine 12 years ago. Now, the market is flooded with a wide variety of devices that are relatively cheap to buy. A search on eBay reveals pages of new and second-hand machines from as little as \$3000, and in the states with no regulation, anyone can buy a machine and set up shop.

And with treatments generally costing anywhere upwards of \$65 per five minutes, it's easy to see why. While it's not possible to get an exact estimate on just how many

operators are now out there nationally, Collins says he trains between 500 and 600 a year. "As the training is only a voluntary arrangement in some states, this is by no means the whole picture," he says.

### Laser vs IPL

Many establishments will argue that their technology is better than the others – see Blinded By Science, below. One common sales pitch is that laser is better than IPL, and vice versa. However, our experts say both devices can

be equally effective in the hands of an experienced operator.

"The handpieces of IPL devices are often large and bulky so it's hard for the operator to get proper coverage," says Collins. "Lasers have one wavelength, but because IPL has a broad band of wavelength a lot of it goes in extra heat, which means the skin needs to be cooled with a chilled handset or spray. If you don't cool it, the IPL is dumping the extra heat on the patient. When you have excess heat in the body, most of it ends up in the surface of the skin – and that's when burns can occur."

The market is flooded with a wide variety of laser hair removal and IPL devices that are relatively cheap to buy



## BLINDED BY SCIENCE

CHOICE sent consumer Kerry out to a mix of beauty salons and walk-in clinics in Sydney to enquire about having permanent hair reduction treatment on her legs. Before visiting the salons, Kerry, who has fair skin and a mix of fine brown and blonde hairs, was assessed by Dr Sharron Phillipson, who specialises in permanent hair reduction. Phillipson said that while Kerry is suitable for treatment, her fairer hairs may not respond as well. Kerry also has a slight tan, which is not ideal prior to treatment. Phillipson told Kerry that all operators should ask whether she has any medical conditions

or was on any medication, as well as check to see if she had a tan.

The first salon went into detail about the treatment but when asked about training, the operators said they were trained by the machine manufacturer only. They were also keen to get her to pre-pay for six treatments for a small discount, although earlier they said she'd only need five treatments in total.

The advice about the number of treatments Kerry would need ranged from just five at one salon to 10 at another. On staff training, responses ranged from training by the manufacturer to none but

"it's OK, we've been doing this for years". Most places used plenty of jargon but struggled when questioned further. One clinic insisted all its staff were "qualified" but couldn't provide details. Another said their team was trained in the use of Fraxel, which is a device used to treat skin but isn't used for hair reduction. One salon told Kerry the reason they use an IPL machine is because "lasers can burn you".

None of the establishments Kerry visited asked about medical conditions, if she was taking any medication or if she had been tanning.

## THE UGLY

"I had IPL at a beautician and the pain was unbelievable – it felt like a blow torch. She told me it was fine and encouraged me to keep going. Later I went to the doctor in agony; I was told I had severe burns. Six years later I still have terrible scars." – Deborah

"I tried IPL at a beauty salon and I was left with blistering burns." – Chloe

"I regularly see patients who have adverse outcomes with laser and IPL treatments. Sometimes the damage is temporary, but two of my recent patients suffered deep skin burns that have left them with permanent scarring on the face." – Dr Philip Bekhor, dermatologist

### Where's the regulation?

There are no Commonwealth regulations on the use of laser and IPL. Only Tasmania, WA and Queensland regulate the industry in some way for lasers, but no states have moved to regulate IPL.

The Therapeutic Goods Administration regulates the importation of lasers and IPLs when they're used for "therapeutic purposes". However, hair removal isn't considered a therapeutic use, so a machine bought for this purpose doesn't have to be registered.

The Australian Radiation Protection and Nuclear Safety Agency was due to deliver a draft report into the issue in 2007, but this still hasn't happened. Gillian Hirth, a spokesperson for the agency, says the scope and focus of the original work has shifted, with more emphasis put on the use of IPLs and lasers for cosmetic purposes rather than medical uses as originally planned. The expected review will revisit the issues regarding lasers and IPLs used for cosmetic purposes, and the case for any regulatory action. However, Hirth says justifying a case for regulation requires evidence that there is a significant problem.

Examples of severe burns from IPL treatment on the legs (right) and chest (below)



The experts CHOICE spoke to believe the reported cases are just the tip of the iceberg, and that many incidents remain unreported due to embarrassment and simply not knowing where to complain. Collins says most reports come from medical personnel, who have a legal requirement to report accidents, however there is no legal requirement for operators to report laser or IPL accidents if they're untrained.

However, Collins and Phillipson believe that as the industry continues to grow, there will be more accidents, more often. "Without some form of regulation we will be seeing more women receive potentially disfiguring injuries," says Phillipson.

### CHOICE verdict

**R**egulation at a national level for laser hair removal and IPL regulation is required sooner rather than later. As the demand for these services grows along with the number of untrained operators, we believe that without suitable training and licensing requirements, more people will be paying for ineffective treatments or, at worst, being injured. ■



### What to look out for

**S**o long as the industry remains largely unregulated, the decision about where to get the treatments still rests with the consumer. Here are some tips to help you make an informed decision:

**Ask questions** What kind of training and qualifications do the staff have? Who will be doing the treatment? The ideal clinic will have medically trained staff and a doctor, cosmetic surgeon or dermatologist overseeing the treatments.

#### Consultation and medication

The operator should conduct a full consultation assessing your skin type

and hair colour. They should also check your medical history and whether you're on any medication that may affect the treatment and outcome.

**Don't fall for the hard sell** Don't be seduced by sales offers and pre-pay options. While it can be an expensive treatment, you're better off in the hands of an experienced operator who will get the best results rather than pre-paying for a treatment that might not work.

**Walk away if you feel uncomfortable** or they can't answer your questions. Also, if you've had more than four treatments with little result, it might be time to go elsewhere.

# Thoroughly modern nappy



Cloth nappies have come a long way, writes **Karina Bray**.

**C**HOICE recently surveyed hundreds of parents to discover their thoughts on and experiences of different types of nappies. Disposables still clearly dominate, with more than 95% of parents using them some or all of the time. But the current incarnation of modern cloth nappies (MCNs) has made inroads into the market over the past decade or so, with almost one in five of our respondents using them at least sometimes. So, they're good for some of the people, some of the time – but are they right for you and your baby?

## How popular are MCNs?

Eighteen per cent of respondents to our online survey said they use them – 16% in combination with disposable nappies (including eco disposables), with about two per cent using MCNs exclusively and a few using them in combination with traditional terry cloth nappies.

"I used disposables for the first few weeks for my newborn," said one survey respondent. "Now I use MCNs at home, and disposables at daycare, on holidays and occasionally as spare nappies (for example if the MCNs aren't dry)".

The main benefits of cloth nappies for some users are their reduced environmental impact and long-term cost, appearance and being gentle on babies' skin. For many, there's also a distinct, almost evangelical joy in using them.

"Besides all the other benefits – easy to use, no chemicals against baby's skin, easy to wash, better for the environment – cloth is just fun!" said one MCN user. "I love my nappy stash, I love the way it looks on bubs, and I have so much fun with it."

Said another: "With my third baby using the same set of modern cloth nappies, I now delight in how much money I have saved in nappy purchasing after that initial outlay for the cloth nappies."

There are many brands of MCN out in the market – respondents reported using

a total of 248 different brands. Most use more than one brand, with 3.7 brands used on average and one-third of people using five or more brands. As well as different brands, there are also

different types, sometimes several for each brand.

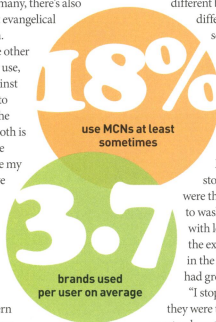
Types are listed and described in the buying guide, opposite.

Enthusiasm can wane, however. A further 17% of our respondents had used MCNs in the past and stopped. The main reasons were the time and space required to wash and dry them, problems with leaks and nappy rash, and the expense of buying a new set in the next size up once the baby had grown out of the first size.

"I stopped using MCNs because they were time-consuming, took way too long to dry, even in the summer months, and my baby was suffering from nappy rash even though we had followed the washing and rinsing instructions," said one disillusioned ex-MCN user.

## Will they save you money?

Assuming a baby uses about 6500 nappies from birth to toilet training (based on six nappies a day for three years), disposables cost about \$2000-\$3000 all up, depending on brand and how you buy them (many people buy in bulk on special). Modern cloth nappies will cost about half that, taking set-up and washing costs into account, but there'll be large variations depending on how you wash and dry them. If you also use them on another child, the savings can be substantial. ■



## Choosing the right nappy for your bub

**F**at legs, thin legs, big tumms, skinny bums... Babies come in a range of shapes and sizes, as do nappies. Given that fit and the level of absorbency your baby needs are critical for performance, it's difficult to predict what style, size or brand of nappy will suit your baby best.

You could buy a single nappy in each of the styles you like to see which suits – some companies sell trial packs with samples of the different styles. An alternative is to hire a trial pack from a nappy library. This service is offered by nappy companies and community groups. Google "modern cloth nappy library" to find one near you. You could also buy second-hand nappies – try friends and family.

## Modern cloth nappies buying guide

### What are the different styles?

**Pre-folds** are unshaped cloth nappies with several layers of cloth for absorbency, used with a leak-proof outer layer. This style of nappy is the cheapest of the modern variety, and while you have to include the cost of the cover, one cover should last up to four or five nappies before it needs washing.

**Fitted nappies** look more like disposables, with a fitted shape around the legs and waist. They're usually made from absorbent material: bamboo, hemp, cotton or fleece. Like pre-folds, they're used with a waterproof cover, and you need about one cover for every four or five nappies.

**Pocket nappies** have a waterproof outer layer sewn together with a soft inner lining. Between the layers, there's a pocket where you put one or more absorbent inserts. The inserts need to be removed before washing and replaced after, which can be fiddly.

**All-in-ones** combine the nappy's different layers into one. They have a moisture-resistant outer layer sewn together with an absorbent inner layer to form the nappy. This means there's no fussing around with separate layers – useful when you're out and about. The extra bulk of all-in-ones does mean they can take longer to dry, depending on the type of fabric.

**All-in-twos** consist of a lined waterproof shell and one or more snap-in absorbent layers or boosters, which are separated for laundering purposes. Offering faster drying times than all-in-ones, if you assemble them after laundering they're conveniently in one piece and ready to go. This was the most popular type of MCN in our survey.

### Sizing

Cloth nappies come in various sizes, and sizing can differ between brands. Some brands are available in small, medium and large; otherwise it's one-size-fits-most, with extra fastenings for adjusting the nappy as your baby grows. These nappies will get more wear and tear as you're using them all the time – something to consider

if you want them to last for a second child. The alternative is to buy bigger sizes as needed. You'll need to buy more, but they should last longer.

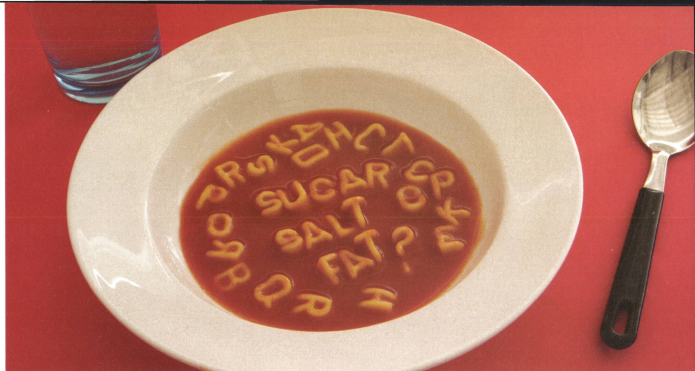
### Fabrics

The various components for cloth nappies are made from a variety of fabrics, with bamboo, cotton, hemp or fleece being the main ones and PUL or wool often used for covers. PUL is a breathable polyurethane laminated fabric that provides a water barrier. Wool is lanolised for water resistance, and needs airing rather than washing when wet. These need re-lanolinising every couple of weeks.

### Drying times

Natural fibres usually take longer to dry than synthetics. If you prefer natural fibres, make sure you have enough nappies to get through a few days of wet weather – or use a tumble-drier. Check the laundry-care information before you buy.





## The whole truth?

Nutrition claims on food labels often don't tell the full story, warns **Rachel Clemons**.

**W**hether you're in a rush to get to work, pick up your kids from school or get home to prepare for your dinner party, grocery shopping is regularly done in a hurry. You may have no time to read the fine print on the back of food packaging, so you rely on front-of-pack claims to choose healthy products quickly.

The problem is, these claims are often selective. Enticing promises of reduced salt,

for example, may be a cover for a product high in saturated fat. And confectionery products are particularly notorious for distracting you from their sugary composition by boasting about their fat-free status. To illustrate, CHOICE picked up a random selection of supermarket products that make nutrition claims and applied nutrient traffic light labels, the criteria for which are based on the latest nutrition recommendations and dietary guidelines established by government health experts here and internationally. See opposite for a snapshot of what we found.

A red light doesn't necessarily mean don't buy – it's a visual indicator that a product is high in a less desirable nutrient. Rather than avoid a food altogether, you may just need to be conscious of how much of it you eat – and how often. A red light for total fat on a muesli bar, for example, may indicate a high nut (and therefore "good" fat) content rather than an overload of less-beneficial added fats (which you can confirm by checking what's higher up the ingredients list). And a red light for sugar on an ice-cream emblazoned with fat-free claims ensures you're aware of its other not-so-healthy attributes. ■

**81%**

of shoppers correctly  
identified healthy  
foods using traffic  
light labelling\*

**64%**

of shoppers correctly  
identified healthy  
foods using  
%DI labelling\*

### BETTER FOOD LABELS FOR YOU

**A**s part of our ongoing work to help consumers make informed choices about their food – to know how healthy it is, where it comes from, and how it's been produced – CHOICE made a detailed submission to an independent review panel in 2010 highlighting seven demands for better food labels. The panel's report was released in January and includes 61 recommendations, to which the government is set to respond

in December.

So there can be more balanced information about the healthiness of packaged food, we're calling for the introduction of traffic light labelling to provide consumers with at-a-glance nutrition information about the foods they buy.







What could be bad about fat-free "crispy pillows of corn with a hint of honey"?



So moreish – but with just 1% saturated fat it won't matter if I have a couple of handfuls.

FAT ▲  
SAT. FAT ▲  
SUGARS ▲  
SODIUM ■

Why bother with my usual bowl of shredded wheat when I can get my wholegrains from a bar?



FAT ▲  
SAT. FAT ▲  
SUGARS ■  
SODIUM ■

FAT ●  
SAT. FAT ●  
SUGARS ■  
SODIUM ■

Full of wholemeal goodness and no hydrogenated fat nasties. What better bikkie to dip in my cuppa?



FAT ■  
SAT. FAT ■  
SUGARS ■  
SODIUM ■



50g NET  
GOOD SOURCE OF PROTEIN  
LOW IN TRANS FATTY ACID  
LOW IN SUGAR  
SOURCE OF DIETARY FIBRE

FAT ■  
SAT. FAT ▲  
SUGARS ●  
SODIUM ■

Great – yummy pork crackling snacks, and look at all those health ticks. Must grab some for pre-dinner drinks.

They're all-natural and practically fat-free, so they must be a good choice for my kids.



FAT ●  
SAT. FAT ●  
SUGARS ■  
SODIUM ■

## Give traffic light labelling the green light

Some food manufacturers use percentage daily intake (%DI) labelling systems to provide you with more information – often in conjunction with nutrition claims. However, these systems have limitations. First and foremost, they require you to undertake onerous calculations and estimations of your likely intake of nutrients from all foods that you may eat throughout the day. In addition, the daily intake values on which the %DI system is based aren't relevant to the entire population, as energy and nutrient needs vary depending on age, gender and physical activity levels,

and during pregnancy and breastfeeding. Another weakness of the %DI system is that it's based on manufacturer-determined serve sizes that are open to manipulation and may not reflect the quantities you eat. By contrast, traffic light labelling provides simple visual and interpretive information about whether products contain high, moderate or low levels of the key nutrients of public health concern – total fat, saturated fat, sugars and sodium. Importantly, research has shown that shoppers are more likely to correctly identify healthy foods using the traffic light system than using other

systems – including %DI. In the UK, about a third of products carry nutrient traffic lights. The system, while voluntary, is used by two of the UK's major retailers as well as manufacturers such as McCain.

### SHAME THE CLAIM

Have you been seduced by nutrient or health claims only to find on closer inspection that the food doesn't live up to its healthy image? Support CHOICE's Better Food Labelling campaign by sending us examples of products whose claims don't tell the whole nutritional story. Log on to [choice.com.au/betterfoodlabelling](http://choice.com.au/betterfoodlabelling) for details.

#### USING THE TRAFFIC LIGHTS

Fat, saturated fat, sugars and sodium figures are taken from the nutrition information panel on the package. Traffic light criteria for food are based on the latest nutrition recommendations and dietary guidelines established by

government health experts in Australia and internationally.

Total fat (g/100g): ● ≤ 3; ▲ 3.1-19.9; ■ ≥ 20.  
Saturated fat (g/100g): ● ≤ 1.5; ▲ 1.6-4.9; ■ ≥ 5.  
Sugars (g/100g): ● ≤ 5; ▲ 5.1-14.9; ■ ≥ 15.  
Sodium (mg/100g): ● ≤ 20; ▲ 21-59; ■ ≥ 60.

# Ask the Experts

Got a niggling question our team can help with?

## Ask us

Do you have a question for one of CHOICE's experts? Email us at [asktheexperts@choice.com.au](mailto:asktheexperts@choice.com.au) or write to us at Ask the Experts, CHOICE, 57 Carrington Rd, Marrickville, NSW 2204.

**Can you suggest a small speaker for our Samsung LCD TV that would project the sound forwards rather than backwards? We're having issues with sound quality in our large open-plan room.**

**CHOICE home entertainment expert Chris Ruggles replies:** There are a number of solutions to this problem. The cheapest and probably easiest would be to connect a mini hi-fi system, such as the ones we tested in August 2011 ([choice.com.au/minihifi](http://choice.com.au/minihifi)). You can do this via the digital audio out connection on the back of the TV. Many mini hi-fi systems have a digital-in connection and will provide much better sound than most TVs on the market.

More expensive options would be to buy a sound bar or the Q Acoustics Q-TV2. This attaches to your TV and costs about \$740.

Chris Ruggles



**Steve Duncombe and my questions. Where can I find a tablet on which it is possible to write with a finger or stylus?**

**CHOICE Computer expert Steve Duncombe replies:** There are a number of applications that allow you to write on a tablet - many of them for the iPad (which has by far the most apps available) and some free.

The iPad and its apps are designed for finger-touch operation, including typing and taking notes, but some apps are also

**I have acquired upper motor neurone disease and have great difficulty with speech. I have to write down my conversations**

optimised for using a stylus. This doesn't come with the iPad, but third-party devices made for the iPad are available from the Apple Store ([apple.com/au/accessibility/resources/iphone.html](http://apple.com/au/accessibility/resources/iphone.html)) or [ipadaccessoriesaustralia.com.au](http://ipadaccessoriesaustralia.com.au).

Apps available include the entry-level Jotter Notes. There's also the free epiNOTE HD, which allows you to draw, sketch or write on your iPad with your finger or stylus, and an upgraded paid version called epiNOTE HD Plus for \$4.49. Another advanced app that can be used with finger or stylus is Note Taker HD for iPad (\$5.49). Check out the full descriptions on iTunes and play with the free ones on an iPad. You can try out one at the Apple Store - just contact them first to ask if they can download the apps and provide a stylus.

**Why did state and federal governments offer generous incentives to encourage us to install solar panel technology, only to backtrack later?**

**CHOICE Head of Campaigns Matthew Levey replies:** Australian consumers love solar power. This is undoubtedly why state and federal governments have thrown massive subsidies at household solar photovoltaic (PV) installations.

The local industry has expanded rapidly. Of the 187,000 solar PV systems installed in Australia by late last year, about 170,000 were installed in the previous two years. Over the same period, the cost of solar PV systems - almost all of them imported - has dropped. At some points in recent history, the combination of cheaper systems, local economies of scale and generous subsidies has made solar systems almost free to consumers.

For governments, it makes sense that subsidies should reduce in line with costs. But they have never been terribly clear whether solar subsidies are about bolstering their green credentials, pleasing households or developing a new energy industry.

Another problem has been a lack of coordination between federal and state governments. Stop-start subsidies, along with lower solar costs, have caused some major, unanticipated blow-outs. The costs flow back to the public - in some cases to government budgets, in others to higher electricity bills. That's why some governments have found themselves retreating so quickly - and sometimes dramatically - from solar programs, much to the public's confusion.

Matthew Levey



We peek into 14 tents to find out which ones will stand their ground when you really need them to

# Lab Tests

Tents, home theatre speakers, air conditioners and pocket camcorders – they're all on test here



Matthew Steen can relax, knowing which tent will keep him dry



- 42 Home theatre speakers**  
Which give real bang for your buck?
- 47 Pocket camcorders**  
Allowing you to capture the moment
- 50 High-end cameras**  
Models to improve your image
- 56 Rechargeable batteries**  
15 NiMH AA models on test
- 59 Washing machines**  
We find a creep in cycle times
- 63 Fridges**  
Does new really mean new?
- 68 Air conditioners**  
Keep your cool with these split-system units
- 71 Tents**  
All the elements covered

## CHOICE. The People's Watchdog

**CHOICE** has its own testing laboratories where our experienced technical staff put products through their paces. We use test methods based on Australian standards, and we develop our own to match the way consumers use a product in their homes. We buy the products we test, maintaining our independence from manufacturers, and so we know what you're faced with in the shops. Our recommendations are based on a product's quality and performance, with no hidden bias.

**CHOICE SHOPPER** For the best deal on products, call 1300 360 655. Have the model name and number, the price you've been quoted and your CHOICE subscriber number.

**CHOICE ONLINE**  
When you see a mouse icon, there is more information about this test at [www.choice.com.au](http://www.choice.com.au).

**CHOICE BEST BUY** Our testers award a product a Best Buy if it delivers high quality at a comparatively low price. Not every test report includes Best Buys.

**CHOICE GREEN BUY** Our researchers award a Green Buy to a product that delivers good quality and environmental performance. Not every product test includes Green Buys.





## Sweet sounds

Does spending \$2000 on speakers provide a rewarding listening experience? **Chris Ruggles** finds out.

**F**or some time CHOICE has recommended you spend at least as much on your speakers as you do on your TV. So we sent our buyers out to spend between \$2000 and \$2500 for a package of five

speakers and a subwoofer made by manufacturers found in some larger stores, as well as the more specialised hi-fi stores. We were hoping to find at least one balanced system that can cope with stereo and multichannel music as

### Nutshell

- Don't judge speakers on size. Small can work well, particularly in smaller rooms.
- Time spent setting up is well worth it for getting the most out of your home theatre system.

well as surround sound movies. Overall, the results are a pleasant surprise, given our experience with cheaper systems has been mostly disappointing. ▶

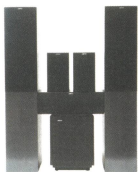


### HOW WE TEST

Each set of speakers is positioned equidistant from the listening position at about head height. They are then balanced for our listening room. This room's dimensions are about 5m x 4m x 2.5m (D x W x H) and it is acoustically treated to approximate a reasonably sound-absorbent lounge room. We use a Denon AVR-3801 AV receiver and Pioneer DV-989AV DVD player, which are connected via coaxial digital audio.

Our listening panel is made up of at least three people, each with a background in either sound engineering or production. They are aware of the average price of the products, but do not know the specific price or brand of each set of speakers. They listen to the same tracks at similar volume through each set of speakers and agree on a ranking for each type of input.

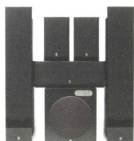
## WHAT TO BUY



**83%**  
Jamo S 506 HCS 6, \$1999

The Jamo's front speakers are designed to sit on the floor and are more than a metre tall, so it isn't for people looking to sit these on a bookshelf. The surround speakers are relatively small and can be wall mounted. The subwoofer fires down (see What to Look For, page 46) and has controls for crossover, volume and phase control.

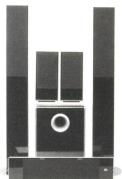
The listening panel were impressed with the clarity, fullness and depth of the sound. This is particularly the case with stereo recordings, which they agreed were slightly better than the surround sound (they still scored its surround sound music as very good, but felt the movie sequence could have a bit more going on at the back of the room).



**80%**  
Yamaha YHT-996, \$2999

This is the only system on test that comes with a receiver (RX-V671B). We originally purchased the YHT-994, but Yamaha upgraded the system while we were testing, adding this new receiver and raising the price. However, the speakers remain the same and for consistency we tested using our test receiver, rather than the delivered one, so we've kept them in the test. The speaker configuration is similar to the Jamo system with tall front speakers, a subwoofer and small surrounds.

The listening panel rated this system best for movies and were impressed with its localisation of sounds and overall drama. However, they were less impressed when listening to multichannel music.



**77%**  
JBL CS500, \$2699

This system is very good for listening to movies and is good for stereo and surround sound music. However, the panel remarked that when listening to music, the high frequencies were a bit "bright", "harsh" or "hot" and overall it could be tiring to listen to for long periods.

The JBL front speakers are the tallest on test and the subwoofer is bulky, but the metallic silver design may suit some rooms better than the black or woodgrain boxes of the others.

## ABOUT THE REST

All systems on test deliver a good or very good listening experience when watching movies in surround sound.

The **Bose** has remarkably small speakers, but also has a bulky white subwoofer that carries quite a bit of the middle as well as the lower frequencies. It comes with proprietary wiring that makes setting up relatively simple, but cable lengths can be limiting.

If you're looking for a system where the speakers don't intrude, the Bose provides consistent performance. There are gaps in the mid ranges and the panel felt it was a bit "lightweight", which reduced the drama of both movies and music.

The **Tannoy** has tall front speakers and small surrounds. Its bass is a little muddly and underpowered at times, and higher frequencies can be harsh. The panel liked its spatial differentiation, but felt its balance wasn't quite right.

The **Bowers & Wilkins** speakers are relatively small and white or black with silver stands. They don't accept banana plugs, which makes connecting them more difficult than most on test. Overall the sound is warm but lacks some detail in the high frequencies. There's a sense of space, but the mid tones are a little underpowered, making voices harder to distinguish.

The **Wharfedale** has bulky (22kg) front speakers with side-facing as well as front drivers, which will limit where you can place them. The panel felt this system localises sound well, but lacks bass and feels as if the sound has been compressed, so there's a lack of drama.

The **PSB** system has relatively small but traditional box-style speakers in a woodgrain finish. They have lots of clarity, which works well for movies, but the panel felt that the sound was "edgy" and bordering on distortion at times, particularly at very high frequencies. This is probably not the right system if music is your primary focus.





## Setting up for solid sound

### Speakers

In an ideal world, each speaker would be equidistant from the listener and none would be up against a wall or jammed into a bookshelf. In the real world, speakers are often positioned for aesthetic reasons, not for optimum sound. Here are a few ideas for dealing with the inevitable compromises.

The position of the **front three speakers** is by far the most critical for good sound. The centre speaker should be facing directly in front of you and as close to the screen as possible. Sitting the speaker on top of the TV is out of the question with modern flatscreens, but sitting the TV on top of the speaker can work if it's stable enough, otherwise you can put the speaker just in front of the TV if the TV stand is high enough. Try not to put it too far below the screen as this will mean that voices sound as though they're divorced from the actors.

The two front speakers should be equidistant from the listening position and at the same height as each other. Ideally they should be placed at an angle of 22.5° from the listening position if

you're watching movies, and a little wider (about 30°) for music (see diagram, opposite). Getting the angle correct isn't critical, but making sure they are equal in every other respect is, because the sound will be unbalanced and surround sound effects will be reduced or lost altogether.

**Rear (surround) speakers** should be the same height and distance from the listener as the front ones and at an angle of 110° from the centre. In other words, just behind the listener and facing the back of their head. If this isn't possible – and it rarely is – keeping them at the same height is important. Also try to angle them so they face the back of the listener's head. Tilting down is a good idea if they are placed above the listener. Placing them well below the listeners' head will sound odd – higher is better.

**Subwoofer** placement is a bit of a dark art. The simplest way is to place it near one of the front speakers. This will help to mask any odd sounds and is usually a good starting point. If you want to get a bit more involved, you can place it in the normal listening position and

play something with lots of bass sounds while moving around the room to find where it sounds best, then move it to that position. However, this won't be very helpful if it ends up in a doorway or the middle of the room. Don't put it hard up against a wall or jammed into a corner, because this will most likely result in boomy and unpleasant bass sounds.

If you have to put the speakers on a bookshelf, try to give them room. Many modern speakers have a vent at the back that needs to be away from hard surfaces. Ten centimetres should be enough as a compromise, but more is usually better, and you should give them as much space at the sides as possible. Blocking the vent will make the speaker sound awful in most cases.

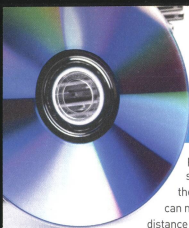
### Balance

Most newer AV receivers have an auto-calibration feature. This uses a microphone placed in the listening position and, when the process is run,



|                                                       |            | PERFORMANCE       |                            |                               |                               |                                    | SPECIFICATIONS                 |                                            |                                             |                                               |
|-------------------------------------------------------|------------|-------------------|----------------------------|-------------------------------|-------------------------------|------------------------------------|--------------------------------|--------------------------------------------|---------------------------------------------|-----------------------------------------------|
|                                                       | Price (\$) | Overall score (%) | Stereo listening score (%) | 5.1 music listening score (%) | 5.1 movie listening score (%) | Subwoofer standby energy score (%) | Speaker impedance, nominal (Ω) | Speaker dimensions, Front (cm, H x W x D)* | Speaker dimensions, Centre (cm, H x W x D)* | Speaker dimensions, Surround (cm, H x W x D)* |
| Jamo S 506 HCS 6                                      | 1999       | 83                | 85                         | 85                            | 80                            | 10                                 | 6                              | 100.5 x 20 x 32                            | 13.5 x 40 x 21                              | 24.5 x 13.5 x 2                               |
| Yamaha YHT-996                                        | 2999       | 80                | 80                         | 75                            | 85                            | 100                                | 6                              | 98.5 x 22.5 x 33.5                         | 19.5 x 51.5 x 20.5                          | 32.5 x 20 x 20                                |
| JBL CS500                                             | 2699       | 77                | 75                         | 75                            | 80                            | 0                                  | 8                              | 117.5 x 29 x 29                            | 16.5 x 67.5 x 12                            | 37 x 15.5 x 12                                |
| Bose Acoustimass 15 Series III                        | 2199       | 75                | 75                         | 75                            | 75                            | 70                                 | ns                             | 16 x 8 x 10.5                              | 8 x 15.5 x 10.5                             | 16 x 8 x 10.5                                 |
| Tannoy Mercury V4, Mercury VC, Mercury VR, and TS-801 | 2696       | 75                | 75                         | 75                            | 75                            | 0                                  | 8                              | 97.5 x 20.5 x 28.5                         | 14.5 x 43 x 17.5                            | 30 x 17 x 12.5                                |
| Bowers & Wilkins MT25                                 | 2500       | 73                | 75                         | 70                            | 75                            | 100                                | 8                              | 24.5 x 13 x 14                             | 24.5 x 13 x 14                              | 24.5 x 13 x 14                                |
| Wharfedale Obsidian 600HCP                            | 2499       | 73                | 60                         | 80                            | 80                            | 10                                 | 6                              | 111 x 19.5 x 35                            | 14.5 x 40 x 23                              | 25.5 x 14 x 23                                |
| PSB Image B4, Image C4, and SubSeries 1               | 2099       | 68                | 65                         | 65                            | 75                            | 10                                 | 6                              | 23 x 13.5 x 16.5                           | 13.5 x 36.5 x 18.5                          | 23 x 13.5 x 16                                |

USING THE TABLE Overall score is made up of 5.1 music, movie and stereo scores, all weighted equally. Standby energy is not included in the overall score. ns Not stated. \* Dimensions are to the nearest 0.5cm. C = Centre speaker



produces sounds so the AV receiver can measure the distance to each speaker. These systems

can work well and are simpler than manual adjustments using a sound pressure meter and tape measure. However, doing this is worthwhile if you don't have the auto option.

### Crossing over

If you have a high-level connection to your subwoofer (see What to Look For, page 46), you'll need to adjust the crossover setting on the subwoofer so it won't pass on too much low frequency to the other speakers. This is usually done using a knob or switch on the subwoofer itself and is measured in Hz. Low-level (line input) connections are more common. With these, you adjust the crossover point via the AV receiver menu.

Follow the manufacturer's settings to begin with, but be willing to experiment a

bit as each room will have some influence on how your system sounds.

### Tuning your room

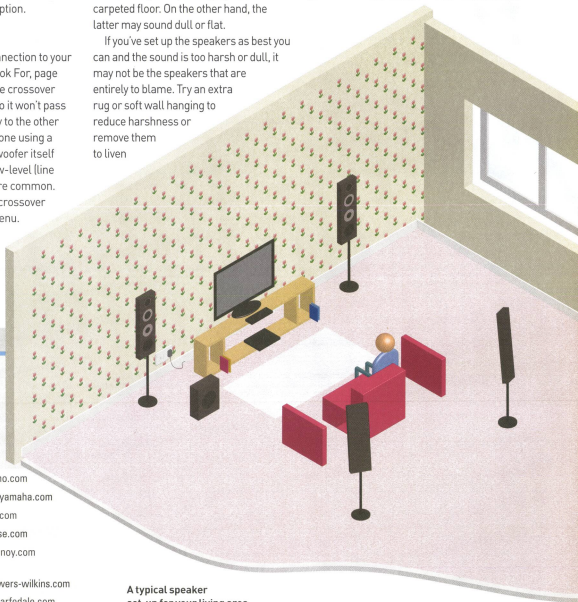
The room and its contents will have an effect on the sound from your speakers. Rooms with lots of glass and hard floors will produce much harsher high notes than if they're heavily curtained and filled with soft furnishings on a carpeted floor. On the other hand, the latter may sound dull or flat.

If you've set up the speakers as best you can and the sound is too harsh or dull, it may not be the speakers that are entirely to blame. Try an extra rug or soft wall hanging to reduce harshness or remove them to liven

things up a bit. Sound bounces like light, and placing something acoustically absorbent such as a curtain or wall hanging at the point where the sound is bouncing to your ear can be quite effective. The easiest way to find this point is to move a mirror along the wall and have someone sitting in the listening position tell you when they can see the speaker.

| Subwoofer<br>(cm, H x W x D)* | Subwoofer direction<br>of fire | Wall mountable | Subwoofer standby<br>energy consumption (W) | Contact            |
|-------------------------------|--------------------------------|----------------|---------------------------------------------|--------------------|
| 27 x 27 x 47.5                | Down                           | C, R           | 8.6                                         | jamo.com           |
| 37.5 x 42                     | Forward                        | R              | 0.7                                         | au.yamaha.com      |
| 34 x 40                       | Down                           | C, R           | 13.9                                        | jbl.com            |
| 21 x 74                       | Down                           | All            | 1.5                                         | bose.com           |
| 30 x 28                       | Forward                        | C, R           | 12.8                                        | tannoy.com         |
| 26 x 31                       | Forward                        | All            | 0.7                                         | bowers-wilkins.com |
| 29 x 32                       | Down                           | R              | 8.4                                         | wharfedale.com     |
| 24.5 x 38                     | Forward                        | All            | 8.3                                         | psbspeakers.com    |

\*Rear (surround) speaker. Price Recommended retail, as of August 2011.



A typical speaker set-up for your living area

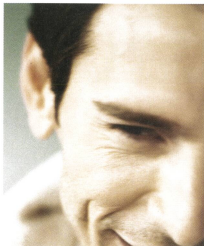
## WHAT TO LOOK FOR

The **size and shape of your speakers** can be influenced by the size and shape of the room in which they're going to be used. See Setting Up for Solid Sound (page 44) for some help with positioning.

Match the **impedance** of the speaker to the output of your AV receiver. Mismatches can result in damage to the speaker and AV receiver or poor performance.

**Bi-amping** is where different amplifiers are used to deliver high and low frequencies to a single speaker. It's of dubious value and is really only one for the buffs.

**Subwoofers** are bulky objects that sit on the floor, but they may not be as robust as they look. Downward-firing models have the speaker driver facing the floor with a relatively small opening at the bottom, offering some protection if you have pets that like sharpening their claws on fabric or children who might push sharp items into a forward-facing speaker. See Setting Up for Solid Sound, page 46, for ideas on where to position a subwoofer. Most have a standby mode, but you should turn them off when not in use to ensure they don't add to your power bill.



**Listen before you buy** Assessing sound equipment is a bit like wine tasting – it's about the subtle variations that can make the experience anything from merely acceptable to remarkable. The quality of sound that a set of speakers can deliver will vary with the characteristics of the room. It's unlikely your room will be exactly the same as the showroom, so it's a good idea to take a CD or DVD with music you're familiar with and insist on hearing it through the speakers using an amp or receiver that's similar to the one you'll be using at home. Most specialist stores will help with this, and some will even bring the speakers to your house once you've narrowed down the field in the store. Larger stores may not be in a position to do this, but may agree to let you exchange the speakers if you're really unhappy with them when you get them home.

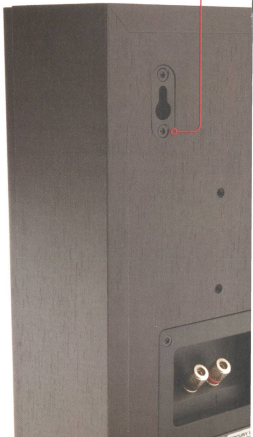
**High and low pass connections** Some subwoofers have high-level inputs that allow you to connect all your speaker outputs from the AV receiver to the subwoofer, and then output to the other speakers. This is useful because the subwoofer will then determine the frequency up to which it delivers the sound and pass higher signals on to the other speakers to deliver the rest. However, this can be messy to set up and most modern AV receivers will do

this internally. In this case, you connect the subwoofer with one or two cables (low-level or line input) and the other speakers directly to the AV receiver.

**Phase control** (subwoofer) allows the listener to change the arrival time of the subwoofer sound waves relative to the same frequencies from the main speakers (that is, at and around the crossover point to the subwoofer). In most cases it's best to leave it at factory settings as moving the subwoofer can have a similar effect.

**Shielding** is particularly important with front and centre speakers because they're most likely to be placed near a screen. Cathode-ray TVs are susceptible to magnetic fields and you shouldn't put even a shielded speaker too close to one. However, if you have a plasma or LCD TV there's little to be concerned about.

**Wall mounting** is possible for the rear speakers for all sets on test. This is handy when space is limited.



## Pocket pleasers

You don't have to spend big for quality video, as some of these small memory-catchers show.

**Denis Gallagher** sorts the best from the rest.



# 3m

Depth up to which  
some models claim  
to be waterproof

### NUTSHELL

- Some of the pocket camcorders on test deliver video good enough to watch on a large-screen TV.
- All have HDMI connections for easy viewing on most flat-panel TVs.

**P**ocket camcorders – also known as multimedia cameras – are a good option for anyone who wants to capture good-quality HD video and play it on a large-screen TV or share it over the internet without having to pay \$1000 for the privilege.

Most models on test cost less than \$300, are simple to use and can upload

video to sites such as YouTube using a PC with a minimum of fuss. We tested 14 pocket camcorders to find out which deliver the best combination of video and audio quality and are easiest to use.

All camcorders on test transfer video via a USB connection using the H.264 codec and MPEG-4 video format, the most common video format for editing video on a PC or Mac. They all have an HDMI connection too, allowing you to watch the video on a flat-panel TV.

We compared the video quality of the pocket camcorders on test with that of a variety of other devices, including smartphones (Apple iPhone 4 and Nokia N8), HD camcorders (Panasonic HDC-SD750 and Canon Legria HF-R28) and a Sony Alpha 55V digital SLR (see page

50) and Casio EX-ZR10 compact camera. We found that the top-performing pocket camcorders are significantly better than the best smartphones for video quality, and are comparable to the digital SLR and compact. As expected, the HD camcorders deliver not only greater exposure control and an optical zoom, but also better-quality HD video.

Compared to most smartphones or full-featured HD camcorders, many of these pocket camcorders are more likely to cope with being dropped, submerged in water and generally dealt with in a rough manner, which is a big plus if you plan on sharing recording duties with family and friends. ▶

## WHAT TO LOOK FOR

**Photo function** allows you to take a high-resolution still image.

**Video storage capacity** The storage options with the models on test are either internal flash memory (4GB or 8GB) or removable secure digital high capacity (SDHC) or extended capacity (SDXC) cards up to 32GB that can be bought separately. While internal storage is convenient,

removable memory camcorders allow you to take the full card out, insert another and continue shooting. None of these models has both a large internal storage and support for removable SD cards. You can expect about one hour of HD video to take up to 1GB of storage.

**Video resolution** All the models on test can record at 1080p resolution, which is similar in quality to the video you watch on HD TV or an upscaled DVD movie.

**Optical zoom** The Panasonic HX-DC1 and HX-WA10 have a 5x optical zoom – a handy feature to get you closer to the action. The other models offer a digital zoom, which is less effective as the video quickly becomes pixelated.

**Connectivity** All models on test support USB 2.0 and include software to convert the video into an internet-friendly format and upload video to sharing sites such as YouTube.

**Accessories** The accessories needed for a pocket camcorder include a mini HDMI connection for watching your video on a flat-panel TV, or an AV cable to connect to the composite video and stereo inputs older CRT TVs.

An **image stabiliser** helps you get the best possible image when taking video or a photo. An optical stabiliser is



|                             |     | PERFORMANCE |                   |                         |    |                       |    |                         |     |                          |     | FEATURES                |   |                   |   |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            |                             |                             |                   |
|-----------------------------|-----|-------------|-------------------|-------------------------|----|-----------------------|----|-------------------------|-----|--------------------------|-----|-------------------------|---|-------------------|---|--------------------------------------------------|---|----------------------|--|----------------------------------------------------------------------|--|-------------|----------------|---------------------------------|------------------------|----------------------------|-----------------------------|-----------------------------|-------------------|
|                             |     | Price (\$)  | Overall score (%) | Video quality score (%) |    | Ease of use score (%) |    | Audio quality score (%) |     | Digital camera score (%) |     | Video sharing score (%) |   | Battery score (%) |   | Maximum recording time at highest quality (mins) |   | Start-up time (secs) |  | Time to transfer 10 minutes of video to PC at highest setting (secs) |  | Touchscreen | Face detection | Battery change possible by user | Mains charger included | Water resistance (claimed) | Built-in mini-USB connector | Electronic image stabiliser | AV cable included |
| Sony Bloggie Touch MHS-TS20 | 279 | 71          | 70                | 88                      | 48 | 80                    | 73 | 54                      | 55  | 3.6                      | 87  | ✓                       | ✓ |                   |   |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            |                             |                             |                   |
| Panasonic HM-TA2            | 249 | 70          | 67                | 82                      | 72 | 45                    | 79 | 61                      | 88  | 5.7                      | 90  | ✓                       | ✓ |                   |   |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            |                             |                             | SDXC              |
| Kodak PlaySport Zx5         | 249 | 67          | 59                | 84                      | 48 | 78                    | 61 | 91                      | 113 | 2.9                      | 119 |                         |   |                   |   |                                                  |   |                      |  |                                                                      |  |             |                | ✓                               |                        |                            |                             |                             | SDHC              |
| Sony Bloggie MHS-FS1        | 179 | 66          | 69                | 78                      | 48 | 68                    | 64 | 56                      | 57  | 9.7                      | 103 |                         | ✓ |                   |   |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            |                             |                             |                   |
| JVC Pico GC-FM2             | 279 | 65          | 68                | 70                      | 36 | 72                    | 92 | 66                      | 70  | 7.6                      | 60  | ✓                       |   |                   |   |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            | ✓                           |                             | SDXC              |
| Sony Bloggie Duo MHS-FS2    | 229 | 65          | 69                | 78                      | 46 | 68                    | 64 | 56                      | 57  | 9.7                      | 103 |                         | ✓ |                   |   |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            |                             |                             |                   |
| Sony Bloggie 3D MHS-FS3     | 499 | 65          | 67                | 84                      | 36 | 67                    | 76 | 47                      | 69  | 4.3                      | 75  |                         | ✓ |                   |   |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            |                             |                             |                   |
| Panasonic HX-DC1            | 299 | 63          | 65                | 70                      | 60 | 78                    | 41 | 43                      | 52  | 8.3                      | 150 |                         | ✓ | ✓                 | ✓ | ✓                                                |   |                      |  |                                                                      |  |             |                |                                 |                        |                            | ✓                           |                             | SDXC              |
| Panasonic HM-TA20           | 299 | 62          | 67                | 86                      | 24 | 45                    | 79 | 61                      | 88  | 5.7                      | 90  | ✓                       | ✓ |                   |   |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            | ✓                           |                             | SDXC              |
| Samsung HMX-W200            | 229 | 62          | 66                | 89                      | 30 | 45                    | 57 | 84                      | 105 | 4.4                      | 125 |                         | ✓ |                   |   |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            |                             |                             | microS            |
| Panasonic HX-WA10           | 499 | 61          | 76                | 63                      | 36 | 88                    | 41 | 44                      | 58  | 8.3                      | 150 |                         | ✓ | ✓                 | ✓ | ✓                                                | ✓ |                      |  |                                                                      |  |             |                |                                 |                        |                            | ✓                           |                             | SDXC              |
| JVC Pico GC-WP10A           | 329 | 60          | 66                | 71                      | 6  | 80                    | 92 | 75                      | 84  | 8.3                      | 61  | ✓                       | ✓ |                   |   |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            | ✓                           |                             | SDXC              |
| Toshiba Camileo BW10        | 299 | 57          | 53                | 78                      | 36 | 56                    | 68 | 48                      | 63  | 6.5                      | 90  |                         | ✓ | ✓                 | ✓ |                                                  |   |                      |  |                                                                      |  |             |                |                                 |                        |                            | ✓                           |                             | SDXC              |
| Toshiba Camileo S30         | 299 | 54          | 59                | 79                      | 18 | 74                    | 22 | 71                      | 94  | 5.3                      | 206 | ✓                       |   | ✓                 | ✓ | ✓                                                |   |                      |  |                                                                      |  |             |                |                                 |                        |                            | ✓                           |                             | SDXC              |

**USING THE TABLE** All models use the H.264 codec and MPEG-4 video format and can be used to take digital still photos. **Scores** The overall score is made up of: Video quality: 30%; Ease of use: 25%; Audio quality: 20%; Digital camera: 10%; Video sharing: 10%; Battery: 5%. **Start-up time** records the time taken from pressing the power on button to the point where the camera is ready to record video. **Price** Recommended.



## WHAT TO BUY

preferable, but none of these models have this feature. However, an **electronic image stabiliser**, where the camcorder's processor helps steady the shot can also be effective. Most models have this feature (see table below).

**Touchscreen** allows you to quickly move through the menus to select record or playback. Some models also allow you to determine the focusing area by touching the scene on screen.

**Waterproof** Several models on test claim to be waterproof to two or three metres and generally deal more effectively with moisture than a full-featured camcorder.

**Face detection** adjusts the focus to keep faces in the scene sharp.

## SPECIFICATIONS

|    | Mono (Mo) or stereo (St) mic | Video storage capacity (MB) | Effective resolution (megapixels) | LCD monitor, screen diagonal size (mm) | Weight (g)       | Contact |
|----|------------------------------|-----------------------------|-----------------------------------|----------------------------------------|------------------|---------|
| Mo | 8000                         | 12.8                        | 77                                | 121                                    | sony.com.au      |         |
| St | 10                           | 8                           | 76                                | 147                                    | panasonic.com.au |         |
| Mo | 128                          | 5                           | 50                                | 129                                    | kodak.com.au     |         |
| Mo | 4000                         | 12.8                        | 69                                | 117                                    | sony.com.au      |         |
| St | na                           | 5                           | 76                                | 113                                    | jvc.com.au       |         |
| Mo | 4000                         | 12.8                        | 68                                | 145                                    | sony.com.au      |         |
| St | 8000                         | 12.8                        | 60                                | 124                                    | sony.com.au      |         |
| St | 80                           | 14                          | 77                                | 186                                    | panasonic.com.au |         |
| St | 10                           | 8                           | 76                                | 158                                    | panasonic.com.au |         |
| Mo | na                           | 5                           | 58                                | 141                                    | samsung.com.au   |         |
| St | 80                           | 16                          | 67                                | 252                                    | panasonic.com.au |         |
| St | na                           | 5                           | 77                                | 151                                    | jvc.com.au       |         |
| Mo | 64                           | 5                           | 51                                | 119                                    | toshiba.com.au   |         |
| Mo | 64                           | 8                           | 75                                | 152                                    | toshiba.com.au   |         |

As of August 2011. TABLE NOTES na Not applicable.



**71%**  
**Sony Bloggie Touch**  
**MHS-TS20, \$279**

## Good points

- Video quality among the best on test.
- Very easy to use, with very good digital camera performance.
- Second-fastest to start up.
- Touchscreen allows you to make swiping motions (as with an iPhone) to fast-forward and zoom in and out as well as make menu selections.

## Bad points

- Recording time is less than one hour at the highest-quality setting.
- Doesn't accept removable memory.



**70%**  
**Panasonic HM-TA2,**  
**\$249**

## Good points

- Touchscreen control for playback, recording and zoom control.
- Very easy to use.
- Stereo microphone delivers best audio performance of the models on test.

## Bad points

- Overall digital still photo performance among the worst on test.

## About the rest

If you're after a hardy pocket camcorder, the **Kodak PlaySport Zx5** is very easy to use and has a long battery life.

The **Samsung**, **JVC**, **Panasonic** and **Toshiba** models are all rugged and water-resistant, although their audio performance is generally poor.

If you want to record footage at parties or capture yourself while travelling with a group of people who all want to be in the video, the **Sony Bloggie Duo** has a second

screen on the front of the camera so you can compose the shot and be in it as well. It also has a 360° lens attachment to capture a fisheye-like video. The **Sony Bloggie 3D** can also capture 3D video.

While 3D and 360° video may sound interesting, many of these gimmicks can quickly lose their novelty, so make sure you choose a model that will satisfy your basic video requirements first.





## Just shoot me

**Chris Ruggles** checks out the alternatives to SLR cameras that also take great photos.

If you're on the look-out for a high-end digital camera, you may not be aware that quality digital photos are no longer the sole preserve of SLRs. The bridge cameras also on test here are essentially a compact camera with extra features. Some do a pretty good job, but they're limited to one lens and their controls are often buried in menus that can take a while to access. See the table, page 54, for more.

Other new contenders in the market that also offer a very real alternative to SLRs are Four Thirds and Micro Four Thirds cameras. Our What to Buy list (opposite and pages 52 and 53) doesn't take account of their often competitive price, which can make them all the more attractive despite the format's limitations. ▶

### Nutshell

- ▶ Quality images are no longer restricted to SLRs.
- ▶ Micro Four Thirds cameras can offer reduced size and weight, as well as good performance and ease of use.
- ▶ If you rarely swap lenses, consider a high-end compact camera rather than an SLR.

### Four thirds of what?

Most people are familiar with an SLR camera's ability to view the scene through the same lens that is used to take the photo. Micro Four Thirds cameras can do the same, but the light travels via a different path.

The Four Thirds standard applies to the imaging sensor, which has an aspect ratio of 4:3 and is half the diagonal length of the 135 film format. It's a compromise between the very small sensors in compact cameras and larger sensors often used in DSLRs. The sensor size makes designing smaller and lighter lenses

possible, but also presents some problems in low-light conditions. Micro Four Thirds uses the same sensor size, but gets rid of the mirrors and prisms needed to redirect light to a viewfinder – the result being a lighter, more compact camera. The lens connection is smaller than for Four Thirds lenses, but they can be used with an adapter. These cameras don't always have a viewfinder and when they do it's electronic, which isn't usually as effective as an optical viewfinder. However, Four Thirds and Micro Four Thirds both compete with DSLR cameras for picture quality and ease of use.

## WHAT TO BUY

Cameras in our What to Buy list score more than 70% overall and for image quality – see over for more.



73%

Canon EOS 60D Kit EF-S  
18-55mm IS, \$1499

## Good points

- Monitor can be tilted in vertical and horizontal directions.
- Built-in HDMI connection.
- Good video quality.

## Bad points

- Tendency to overexpose in bright outdoor light.
- Monitor has some reflections and contrast is reduced in bright conditions.



73%

Olympus E-5 Zuiko  
14-54mm II, \$3098

## Good points

- SDHC and Compact Flash memory card slots.
- Monitor can be tilted in vertical and horizontal directions.
- Built-in HDMI connection.

## Bad points

- Monitor suffers from reflections and contrast and brightness are reduced in poor lighting conditions.
- Some vignetting in wide mode.



72%

Canon EOS 60D Kit EF-S  
18-135mm IS, \$1849

## Good points

- Monitor can be tilted in vertical and horizontal directions.
- Built-in HDMI connection.
- Good video quality.

## Bad points

- Tendency to overexpose in very low light conditions.
- Monitor has some reflections and contrast is reduced in bright conditions.

## The technical side

**Exploring settings** These cameras often have complex but useful features, but you can't use them if you don't know they're there. If the manual proves too difficult, go online for forums specific to your camera, or look for other publications that might be more accessible.

**Quality** Most digital cameras produce JPEG images by default. This is a "lossy" compression (some information is removed to keep file sizes down), but it can produce remarkable results. If you need to conserve memory space, consider what print size you're likely to need. Reducing the image size will save space without losing image quality.

**RAW** is the file the camera produces before it compresses it to a JPEG file. The advantage of RAW is that it contains much more information than a JPEG and can let you rescue an image that

is over- or underexposed. The key disadvantage is that the file sizes are large and you have to process the images yourself.

**Colour space** is almost always set to sRGB, which is a standard for images on TV and the internet. However, many cameras offer a colour space called Adobe 1998, which is better suited to images that will be printed using the more professional CMYK print systems. For the most part you can leave the setting at sRGB, but if you use RAW you get a number of options when you export the image to JPEG or another type of file. It's very important to make sure your software and camera are using the same colour space, otherwise you may find some colours print oddly.

**Controls** A camera covered in buttons and dials may look a bit daunting at first,

but they can make changes to the settings much faster than having to wade through a series of menus.

Some cameras will allow you to assign different functions to buttons, so you can modify the camera's behaviour across a number of settings very quickly.

If you're likely to use your camera for sports events, where things can happen very quickly, it pays to practise using the controls while looking through the viewfinder. Having a display that tells you what changes are being made is very useful here.

(Turn to pages 52 and 55 for more tech tips.)



## Life through a lens

**Lens** When buying a camera, think carefully about the situations where you expect to be taking photos – there's no point in carrying around bulky lenses you may only use very rarely. Professional lenses cost more than standard ones because they're likely to deliver better optical outcomes, often in harsh environments. If you don't need the robustness you may still get quite good optical performance in a lighter, cheaper lens.

Although it is possible to get lenses with extremely long zoom ranges, they will compromise the quality of the image. As a general rule, fixed focal-length lenses can produce better results at a given focal length than a zoom. There are exceptions, but they're very expensive.

**Changing lenses** Take special care when changing lenses, as digital cameras won't work well if there's dust or moisture in them. If you must change lenses in a dusty or damp environment, do so in a plastic bag or something similar to limit the potential damage.

Condensation can be a killer. If you're staying in an air-conditioned hotel in the tropics and change lenses outside, without giving the camera and lens time to warm to the ambient temperature, there's a real chance you'll get moisture inside, which can do permanent damage.

(More technical tips on page 55.)▶



Fish-eye lens



**72%**

**Canon EOS 7D EF-S  
18mm-135mm IS, \$2999**

### Good points

- Built-in HDMI connection.
- Good video quality.

### Bad points

- In auto mode, tends to overexpose in both bright and low light conditions.
- Colour saturation tends towards yellow in some circumstances.
- Some evidence of colour aberrations in wide mode, but not in tele mode.
- Auto-focus is unreliable close up in movie mode.



**71%**

**Canon EOS 600D Kit EF S  
18-55mm IS II, \$1249**

### Good points

- Built-in HDMI connection.
- Monitor can be tilted in vertical and horizontal directions.

### Bad points

- Monitor suffers from reflections in daylight.
- Scratchy noise if changing focus or zooming when recording video.
- Strong reflections from side lighting in tele mode.



**72%**

**Nikon D7000 AF S G  
16-85 VR, \$2799**

### Good points

- Two SDHC memory card slots.
- Built-in HDMI connection.
- Good video quality.

### Bad points

- Audio has scratching noises when zooming in video mode.
- Lens mount indicator is small and not easy to see in some circumstances.



**71%**

**Nikon D7000 Kit AF-S G  
18-105 VR, \$2099**

### Good points

- Two SDHC memory card slots.
- Built-in HDMI connection.
- Good video quality.

### Bad points

- Audio has scratching noises when zooming in video mode.
- Lens mount indicator is small and not easy to see in some circumstances.



71%

Canon EOS 550D EF-S  
18-135mm IS, \$1449

### Good points

- Built-in HDMI connection.

### Bad points

- In auto mode, tends to overexpose in both bright and low light conditions.
- Some vignetting in wide mode.
- Monitor suffers from reflections in daylight.
- Scratchy noise if changing focus or zooming when recording video.



71%

Panasonic Lumix DMC-  
GH2K Kit G Vario  
14-42mm, \$1699

### Good points

- Built-in HDMI connection.
- Monitor can be tilted in vertical and horizontal directions.
- Good video quality.

### Bad points

- Monitor has severe reflections and contrast is reduced in bright conditions.
- RAW images are noisy and have reduced resolution at ISO1600.

## WHAT TO LOOK FOR

**Resolution (megapixels)** We list effective megapixels in our table (page 54), which gives a reasonable indication of the maximum number of pixels the camera uses to create an image. Some manufacturers may use the total number of pixels on the sensor, but this tends to overstate the resolution because some pixels are used for error checking.

**Memory cards** Your camera will determine the type you need. The most important aspect to consider is how much storage you need on each card. A 4GB card is a good size for a DSLR, but some have capacities of more than 64GB. Some cards have faster storage speeds, which is handy if you're doing a lot of continuous shooting or video at high quality.

**Optical image stabilisation** helps prevent shaky images by making adjustments internally for the camera's movement. Some cameras also have a **mechanical system**, whereby the camera's sensor moves to counter any movement.

**Electronic image stabilisation** is performed by the camera's processor and is generally the least effective.

**Video output** A video connection port allows you to look at your pictures on TV, usually using a cable supplied with the camera to connect to the TV's video input.

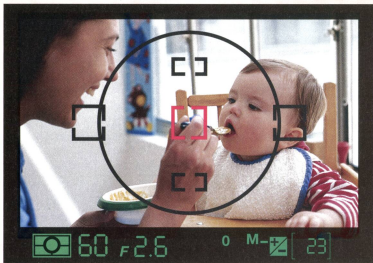
**Viewfinder type** Most DSLR cameras have an optical or electronic viewfinder that you look through to compose your photo, as well as an LCD monitor at the back to view images or change controls. Some Four Thirds and Micro Four Thirds cameras don't come with a viewfinder or it must be bought separately.

**Liveview** is the ability to take a photo by looking at your subject through the LCD screen on the back of the camera. Liveview can be very useful when you need hold the camera at an awkward angle to take the shot, but focus can be slower and less stable.

**Exposure modes** are usually accessed via a selection dial or button and change exposure settings to suit different situations. Manual mode will usually assign controls for shutter speed and aperture to controls that might be used for other things. Auto mode means your camera makes all the decisions for you.

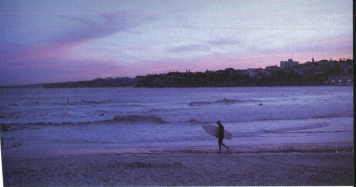
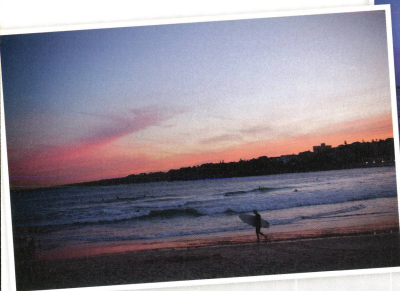
**Playback mode** is used to preview photos already taken. It should be able to display images in groups as well as individually.

**Automatic white balance** makes adjustments for the many different colours of light, though sometimes you will get a better result if you manually override the automatic setting.



Information in the viewfinder helps you adjust controls without looking away from the subject





Choosing the correct setting is important – the picture left is correct (daylight setting) and the one above is not (indoors)

## SCORES

## SPECIFICATION

|                                                 |                   | Price (\$) | Overall (%) | Image quality (%) | Ease of use (%) | Versatility (%) | Monitor (%) | Viewfinder (%) | Flash (%) | Movie quality (%) | Resolution (megapixels) | Zoom range (mm, 35mm equivalent) |
|-------------------------------------------------|-------------------|------------|-------------|-------------------|-----------------|-----------------|-------------|----------------|-----------|-------------------|-------------------------|----------------------------------|
| Canon EOS 60D Kit + EF-S 18-55mm IS             | Canon EF          | 1499       | 73          | 71                | 73              | 80              | 62          | 82             | 88        | 70                | 17.9                    | 28.8                             |
| Olympus E-5 + Zuiko 14-54mm II                  | Four-Thirds       | 3098       | 73          | 74                | 75              | 79              | 55          | 83             | 70        | 66                | 12.2                    | 28-1                             |
| Canon EOS 60D Kit + EF-S 18-135mm IS            | Canon EF          | 1849       | 72          | 70                | 72              | 81              | 62          | 82             | 79        | 71                | 17.9                    | 28.8                             |
| Canon EOS 7D - EF-S 18-135mm IS                 | Canon EF          | 2999       | 72          | 72                | 73              | 78              | 58          | 71             | 75        | 73                | 17.92                   | 28.8                             |
| Nikon D7000 + AF-S G 16-85 VR                   | Nikon F           | 2799       | 72          | 79                | 61              | 81              | 65          | 80             | 62        | 73                | 16.1                    | 24-1                             |
| Sony alpha 33 Kit + 18-55mm DT SAM SAL1855 (A)  | Sony A-mount      | 899        | 72          | 68                | 75              | 78              | 70          | 76             | 70        | 78                | 14                      | 27-8                             |
| Sony alpha 55V Kit + 18-55mm DT SAM SAL1855     | Sony A-mount      | 1299       | 72          | 68                | 74              | 78              | 69          | 77             | 76        | 75                | 16                      | 27-8                             |
| Canon EOS 550D - EF-S 18-135mm IS               | Canon EF          | 1449       | 71          | 72                | 70              | 77              | 66          | 78             | 68        | 62                | 17.92                   | 28.8                             |
| Canon EOS 600D Kit + EF-S 18-55mm IS II         | Canon EF          | 1249       | 71          | 72                | 70              | 76              | 65          | 82             | 70        | 67                | 17.9                    | 28.8                             |
| Nikon D7000 Kit + AF-S G 18-105 VR              | Nikon F           | 2099       | 71          | 77                | 61              | 80              | 65          | 80             | 63        | 73                | 16.1                    | 27-1                             |
| Panasonic Lumix DMC-GH2K Kit + G Vario 14-42mm  | Micro-Four-Thirds | 1699       | 71          | 70                | 73              | 81              | 54          | 81             | 71        | 74                | 15.9                    | 28-8                             |
| Canon EOS 550D Kit - EF-S 18-55mm IS            | Canon EF          | 1099       | 70          | 67                | 72              | 76              | 66          | 79             | 73        | 60                | 17.92                   | 28.8                             |
| Canon EOS 1100D Kit + EF-S 18-55mm IS II        | Canon EF          | 699        | 69          | 74                | 70              | 74              | 42          | 83             | 62        | 63                | 12.2                    | 28.8                             |
| Panasonic Lumix DMC-GH2 + G Vario 14-140mm HD   | Micro-Four-Thirds | 2199       | 68          | 62                | 73              | 83              | 67          | 78             | 64        | 65                | 15.9                    | 28-2                             |
| Canon PowerShot G12                             | Bridge (B)        | 699        | 67          | 74                | 58              | 72              | 65          | 35             | 86        | 67                | 10                      | 28-1                             |
| Nikon D3100 Kit + AF-S G 18-55 VR               | Nikon F           | 949        | 67          | 69                | 64              | 72              | 51          | 77             | 73        | 66                | 14.2                    | 27-8                             |
| Pentax K-5 Kit + smc DA 18-55mm AL WR           | Pentax KAF2       | 1899       | 67          | 68                | 72              | 75              | 52          | 77             | 56        | 56                | 16.1                    | 27.5                             |
| Nikon Coolpix P7000                             | Bridge (B)        | 649        | 66          | 71                | 58              | 73              | 66          | 43             | 76        | 65                | 10                      | 28-2                             |
| Pentax K-r Kit + smc DAL 18-55mm AL             | Pentax KAF2       | 749        | 66          | 64                | 71              | 71              | 56          | 79             | 63        | 54                | 12.2                    | 27-8                             |
| Sony NEX-5 + 18-200mm SEL 18-200 (A)            | Sony E-mount      | 1649       | 66          | 72                | 61              | 75              | 73          | 0              | 67        | 74                | 14                      | 27-3                             |
| Panasonic Lumix DMC-GF2V Kit + G Vario 14-42mm  | Micro-Four-Thirds | 999        | 65          | 71                | 62              | 74              | 70          | 0              | 60        | 65                | 12                      | 28-8                             |
| Canon PowerShot S95                             | Bridge (B)        | 499        | 64          | 73                | 56              | 65              | 67          | 0              | 70        | 74                | 10                      | 28-1                             |
| Sony NEX-3 Kit + 18-55mm SEL1855                | Sony E-mount      | 699        | 64          | 72                | 53              | 72              | 71          | 0              | 65        | 78                | 14                      | 27-8                             |
| Samsung NX11 Kit + 18-55mm OIS                  | Samsung NX        | 749        | 63          | 69                | 62              | 72              | 44          | 63             | 70        | 30                | 14                      | 27.7                             |
| Sony NEX-5 Kit + 18-55mm SEL1855 (A)            | Sony E-mount      | 1149       | 63          | 70                | 52              | 73              | 71          | 0              | 68        | 81                | 14                      | 27-8                             |
| Pentax K-x Kit - smc DAL 18-55mm AL (A)         | Pentax KAF2       | 699        | 61          | 60                | 72              | 71              | 39          | 62             | 66        | 36                | 12.21                   | 27-8                             |
| Sony alpha 390 Kit + 55-200mm DT SAM SAL55200-2 | Sony A-mount      | 849        | 61          | 77                | 58              | 61              | 22          | 75             | 78        | 0                 | 14                      | 82.5                             |
| Leica D-Lux-5                                   | Bridge (B)        | 999        | 60          | 66                | 55              | 74              | 65          | 0              | 58        | 56                | 10                      | 24-9                             |
| Olympus XZ-1                                    | Bridge (B)        | 599        | 60          | 71                | 49              | 74              | 58          | 0              | 65        | 57                | 10                      | 28-1                             |
| Ricoh GXR - S10 24-72 VC                        | Bridge (B)        | 599        | 60          | 62                | 50              | 69              | 51          | 67             | 80        | 65                | 9.98                    | 24-7                             |
| Samsung NX5 Kit + 18-55mm OIS                   | Samsung NX        | 799        | 60          | 67                | 54              | 72              | 35          | 58             | 68        | 58                | 14                      | 27.7                             |
| Sony NEX-5 + 16mm SEL16F28 (A)                  | Sony E-mount      | 999        | 60          | 63                | 56              | 74              | 71          | 0              | 51        | 74                | 14                      | 24(C)                            |

USING THE TABLE Price Recommended retail, as of August 2011. Scores The overall score is made up of: Image quality: 40%; Ease of use: 25%; Versatility: 10%; Monitor: 10%; Viewfinder: 5%; Flash: 5%; Movie quality: 5%. Resolution This calculation is based on the maximum number of pixels the camera uses to create an image. Zoom range A 35mm equivalent figure indicates a range comparable to a 35mm film-based camera. Lens mount determines the type of lenses you can use with the camera. Dimensions includes all protruding parts when the camera is switched off. Weight includes batteries, memory cards and neck strap supplied. Image ratios is for still images. Shutter delay The time it takes from the moment the shutter button is pressed to the moment the picture is taken. A time is included to indicate the delay when focusing on



Micro Four Thirds cameras tend to be smaller and lighter (left) than Four Thirds and SLR cameras (right)

|            | Weight (g) | Image ratios supported | Viewfinder type | Monitor size (mm) | Monitor swivel (degrees, vertical x horizontal) | Shutter delay (secs, 1m / 10m) | Liveview shutter delay (secs, 1m / 10m) | Start-up time (secs) |
|------------|------------|------------------------|-----------------|-------------------|-------------------------------------------------|--------------------------------|-----------------------------------------|----------------------|
| 1x 15      | 1023       | 3:2, 4:3, 16:9         | Optical         | 64 x 42           | 270 x 180                                       | 0.02 / 0.13                    | 0.8 / 1.1                               | 0.76                 |
| 2x 17.5    | 1389       | 3:2, 4:3, 16:9         | Optical         | 60 x 45           | 270 x 180                                       | 0.01 / 0.01                    | 0.1 / 0.2                               | 1.46                 |
| 1x 18      | 1279       | 3:2, 4:3, 16:9         | Optical         | 64 x 42           | 270 x 180                                       | 0.01 / 0.2                     | 0.6 / 1.6                               | 0.75                 |
| 11.5 x 18  | 1425       | 3:2                    | Optical         | 60 x 40           | None                                            | 0.05 / 0.18                    | 1.4 / 2.4                               | 0.34                 |
| 1x 16      | 1317       | 3:2                    | Optical         | 60 x 40           | None                                            | 0.16 / 0.53                    | 1.4 / 1.6                               | 1.02                 |
| 5 x 15.5   | 753        | 3:2, 16:9              | Electronic      | 65 x 37           | 180 x 270                                       | 0.02 / 0.14                    | 0.1 / 0.1                               | 0.95                 |
| 5x 16      | 764        | 3:2, 16:9              | Electronic      | 65 x 37           | 180 x 270                                       | 0.02 / 0.13                    | 0.1 / 0.1                               | 0.92                 |
| 0x 17      | 1039       | 3:2                    | Optical         | 64 x 42           | None                                            | 0.09 / 0.24                    | 1.7 / 2.5                               | 0.69                 |
| 10.5 x 15  | 830        | 3:2                    | Optical         | 64 x 42           | 270 x 180                                       | 0.15 / 0.22                    | 1.5 / 3.0                               | 0.84                 |
| 1x 16.5    | 1258       | 3:2                    | Optical         | 60 x 40           | None                                            | 0.17 / 0.54                    | 1.5 / 1.7                               | 1.02                 |
| 9x 13      | 639        | 3:2, 4:3, 16:9         | Electronic      | 62 x 41           | 270 x 180                                       | 0.15 / 0.19                    | 0.2 / 0.2                               | 1.47                 |
| 0x 14      | 784        | 3:2                    | Optical         | 64 x 42           | None                                            | 0.06 / 0.13                    | 1.2 / 1.9                               | 0.5                  |
| 10.5 x 15  | 740        | 3:2                    | Optical         | 54 x 36           | None                                            | 0.13 / 0.19                    | 1.6 / 3.0                               | 0.72                 |
| 9x 15      | 939        | 3:2, 4:3, 16:9         | Electronic      | 62 x 41           | 270 x 180                                       | 0.14 / 0.17                    | 0.1 / 0.2                               | 1.21                 |
| 8x 5       | 425        | 3:2, 4:3, 16:9         | Optical         | 56 x 42           | 270 x 180                                       | 0.54 / 0.66                    | 0.2 / 0.3                               | 3.11                 |
| 10 x 16.5  | 817        | 3:2                    | Optical         | 60 x 40           | None                                            | 0.12 / 0.34                    | 1.6 / 1.9                               | 0.9                  |
| 10 x 14.5  | 1021       | 3:2                    | Optical         | 60 x 40           | None                                            | 0.04 / 0.14                    | 0.1 / 0.4                               | 0.87                 |
| 8.5 x 5    | 391        | 3:2, 4:3, 16:9         | Optical         | 60 x 45           | None                                            | 0.09 / 0.12                    | 0.2 / 0.1                               | 3.24                 |
| 9.5 x 14.5 | 851        | 3:2                    | Optical         | 60 x 39           | None                                            | 0.02 / 0.13                    | 1 / 0.4                                 | 0.68                 |
| 5 x 14.5   | 875        | 3:2, 16:9              | None            | 65 x 37           | 125 x 0                                         | np / np                        | 0.29 / 0.35                             | 2.04                 |
| 7 x 11     | 505        | 3:2, 4:3, 16:9         | None            | 63 x 41           | None                                            | np / np                        | 0.2 / 0.3                               | 1.34                 |
| 6x 3       | 196        | 3:2, 4:3, 16:9         | None            | 60 x 45           | None                                            | np / np                        | 0.35 / 0.26                             | 2.91                 |
| 8 x 10.5   | 544        | 3:2, 16:9              | None            | 65 x 37           | 125 x 0                                         | np / np                        | 0.36 / 0.77                             | 1.47                 |
| 0.5 x 12.5 | 645        | 3:2, 16:9              | Electronic      | 61 x 41           | None                                            | 0.21 / 0.35                    | 0.3 / 0.4                               | 1.57                 |
| 6x 10.5    | 534        | 3:2, 16:9              | None            | 65 x 37           | 125 x 0                                         | 0.37 / 0.87                    | na / na                                 | 1.86                 |
| 9.5 x 13.5 | 890        | 3:2                    | Optical         | 54 x 36           | None                                            | 0.01 / 0.09                    | 2.3 / 3.0                               | 0.5                  |
| 10 x 16.5  | 893        | 3:2, 16:9              | Optical         | 54 x 36           | 140 x 0                                         | 0.17 / 0.89                    | 0.2 / 1.1                               | 1.01                 |
| 7 x 5      | 283        | 3:2, 4:3, 16:9         | None            | 62 x 41           | None                                            | np / np                        | 0.25 / 0.45                             | 2.42                 |
| 7 x 5      | 285        | 3:2, 4:3, 16:9         | None            | 63 x 42           | None                                            | np / np                        | 0.4 / 0.4                               | 3.36                 |
| 10 x 7     | 417        | 3:2, 4:3, 16:9         | Electronic      | 60 x 45           | None                                            | 0.41 / 0.33                    | 0.6 / 0.4                               | 2.72                 |
| 9.5 x 12.5 | 638        | 3:2, 16:9              | Electronic      | 61 x 41           | None                                            | 0.28 / 0.75                    | 0.3 / 0.6                               | 1.24                 |
| 9 x 6.5    | 406        | 3:2, 16:9              | None            | 65 x 37           | 125 x 0                                         | np / np                        | 0.41 / 0.49                             | 1.66                 |

Start-up time at close (1m) or medium range (10m). **Start-up time** The time delay between turning on the camera and being ready to take a photo.  
**Shutter delay** Same as normal shutter delay, except the camera is in Liveview mode. **TABLE NOTES** na Not applicable.  
 (A) Discontinued, but may still be available in stores. (B) Lens is fixed to the camera.  
 and focal length.

## Filter tips

### Using programmed exposure controls

Compact cameras usually offer a number of predetermined exposure settings for specific conditions (snow, portrait etc), and you can find similar settings in most high-end cameras. But if this is the only way you're going to use a camera, you might want to rethink buying one with so many manual controls. Almost all high-end cameras let you select aperture or shutter speed priority modes. These are very useful because you get to decide what's important to you.

**Filters** fit to the front of the lens and can be used for protection (UV filters are best because they don't reduce significantly the amount of light entering the lens and may help reduce glare), special effects or to control the way light enters the lens. For the latter, polarising filters are the most useful. They make it possible to reduce glare on shiny surfaces such as water and tend to intensify colours as well. But they'll also significantly reduce the amount of light entering the lens, so you may need to increase exposure or ISO sensitivity to compensate.

**Shutter priority means you control the shutter speed and the camera will try to find an aperture to fit. Sports photos are often taken in this mode because stopping the action is critical. There's usually a warning in the form of a beep, or a flashing light if the exposure is too far out. Aperture priority allows you to set the aperture and the camera controls the shutter speed. This is handy for situations where you want either maximum (landscapes) or minimum (portraits) depth of field.**



## Taking charge

Rechargeable batteries are an economical and environmentally friendly way to power your gadgets. **Denis Gallagher** sorts out the best from the beasts.

**T**he latest rechargeable AA batteries use NiMH (nickel-metal hydride), which delivers a higher capacity than the older NiCad (nickel-cadmium) rechargeable batteries and has less of a memory effect (see Jargon Buster, page 58) when recharging. While more expensive to buy, after a dozen or so charges they'll work out to be more economical than buying alkaline batteries separately – not to mention you'll help reduce the number of dead batteries going into landfill. But not all rechargeable batteries are created equal.

Self-discharging – where a rechargeable battery loses some of its power every day even when not in use – is an issue when powering infrequently used devices such as an emergency torch or camera, as the

battery will go flat over time. In these situations, alkaline batteries are more commonly used as they have a much better shelf life and can be trusted to work even if left unused for a year. The latest low self-discharge (LSD) rechargeables claim to retain up to 85% of their charge after 12 months of non-use, whereas standard NiMH batteries may only keep 50%.

Being able to immediately use these batteries once you take them out of the packet is another handy feature of an LSD or ready-to-use NiMH battery, particularly when the kids are demanding to immediately power up their latest birthday or Christmas present.

### The numbers game

CHOICE put 15 rechargeable NiMH AA batteries to the test to see which ones last

longest, can be recharged the most often and don't lose their charge when left unused. Interestingly, all but one of our recommended batteries (right) are LSD.

LSD batteries have lower capacities of 2000-2100 milliampere hour (mAh) compared with other rechargeable batteries, which range from 2500mAh-2900mAh. However, our testing has found the figures on the packet don't tell the whole story. The Varta Power Accu (a non-LSD battery) lost almost 40% of its initial capacity when not being used for 30 days, whereas an LSD battery from the same company (Varta Ready2Use) lost just 14% of its capacity.

We also measured two lithium non-rechargeable batteries (Duracell Ultra Lithium and Energizer Ultimate Lithium) ▶

## WHAT TO BUY

**75%**

**Kodak KAARPC-4**  
\$20 (4 x AA pack)

**Good points**

- Ready to use out of the pack.
- Continues operating after 200 cycles.
- Initial capacity more than the stated capacity.
- Good average capacity for the life of the battery on test.

**Bad points**

- None to mention.

**71%**

**Sony NH-AA-B4KN**  
\$23 (4 x AA pack)

**Good points**

- Ready to use out of the pack.
- Continues to operate well after 200 cycles.
- Good average capacity for the life of the battery on test.

**Bad points**

- Equal-highest average daily discharge rate of the ready-to-use batteries.

**74%**

**Sanyo Eneloop**  
\$23 (4 x AA pack)

**Good points**

- Ready to use out of the pack.
- Delivers more than 300 charges before failing and has the greatest overall capacity over the life of the battery.
- Very low daily discharge rate.

**Bad points**

- None to mention.

**70%**

**Eveready RE15BP2T**  
\$12 (2 x AA pack)

**Good points**

- Continues to operate well after 200 cycles.
- Initial charge capacity closest to claimed capacity of the recommended models.

**Bad points**

- Only non-LSD (not ready to use) battery among the recommended models.

**72%**

**Varta Ready2Use**  
\$18 (4 x AA pack)

**Good points**

- Ready to use out of the pack.
- Continues to operate after 200 cycles.
- Second-lowest average daily discharge rate.

**Bad points**

- Not as good value for money as the top-value Sanyo model.

## About the rest

The Energizer, Artec and Duracell non-LSD (not ready to use) batteries all deliver similar performance. They have good battery life but drop to less than half the initial capacity after just over 100 charges. The Duracell Active Charge and Powertech performed OK over the test period, but aren't as good value as the recommended models.

While the Panasonic battery lasts only 90 charges before dropping below half its initial capacity, the Vapex delivers the worst overall battery life of the models on test, lasting only 53 recharges despite starting with the highest initial capacity of 2478mAh.

Although the Uniross is an LSD battery, it performs the worst of all the models on test.

and an alkaline battery (Panasonic Evolta) for comparison, and found their discharge over the test period to be imperceptible. So if you're expecting your device to operate straight away after long periods of inactivity, you may

want to consider a lithium or alkaline battery instead.

Two factors to consider when buying rechargables are the length of time it can power the device, and the number of times it can be charged before it becomes inefficient. We ruled a

battery to have failed if its capacity had dropped below 50% of its initial capacity after a recharge. For example, if a battery began its life with a capacity of 2000mAh, we stopped the charging/recharging cycle when the battery's fully charged capacity dropped below 1000mAh.

Most of the rechargeable batteries on test claim hundreds – up to as many as 1500 – of possible charges. However, charging a battery 1500 times to give you only a fraction of the original capacity is not very useful. Recycling your old rechargables can be tricky as there is no national recycling program. Planet Ark has an online service at [recyclingnearyou.com.au](http://recyclingnearyou.com.au), where you can find drop-off points in your area.

While our top-scoring models are of a lower initial capacity than most of the other batteries on test, all are able to deliver at least half their capacity for more than 200 cycles, making them a better-value battery. ■

## JARGON BUSTER

**Milliampere hours (mAh)** The higher the mAh, the longer the battery will last. For rechargeable batteries, the mAh rating is how long the battery will last per charge.

**Memory effect** is where the battery appears to fail to charge to its full capacity.

**Claimed capacity** High-drain tasks such as frequently using the flash on your digital camera may benefit from a battery with a higher capacity. However, our testing has found that the claim is just that. Although all had an initial charge greater than 2000mAh-2100mAh of the LSD batteries, all the high-capacity batteries achieved a lower initial charge than the advertised capacity.

**Li-ion single use** batteries are not rechargeable but last the longest in high-drain devices such as digital cameras. They're also good for devices that won't be used for months at a time.

### PERFORMANCE

### SPECIFICATIONS

|                                 | Price per battery (\$) | Overall score (%) | Endurance score (%) | Consistency score (%) | Self-discharge score (%) | Value score (%) | Average discharge time (min) | Number of charges before failure | Claimed capacity (mAh) | LSD (ready to use) | Claimed number of recharges | Contact                                                                      |
|---------------------------------|------------------------|-------------------|---------------------|-----------------------|--------------------------|-----------------|------------------------------|----------------------------------|------------------------|--------------------|-----------------------------|------------------------------------------------------------------------------|
| Kodak KAARPC-4                  | 5.00                   | 75                | 78                  | 60                    | 85                       | 78              | 120                          | 216                              | 2100                   | ✓                  | 1000                        | <a href="http://kodak.com.au">kodak.com.au</a>                               |
| Sanyo Eneloop 4HR-3UTG-SAPP-2   | 5.75                   | 74                | 72                  | 60                    | 85                       | 91              | 111                          | 314                              | 2000                   | ✓                  | 1500                        | <a href="http://sanyo.com.au">sanyo.com.au</a>                               |
| Varta Ready2Use 56706 412 404   | 4.50                   | 72                | 71                  | 62                    | 86                       | 77              | 109                          | 217                              | 2100                   | ✓                  | 1000                        | <a href="http://varta-consumer.com">varta-consumer.com</a>                   |
| Sony NH-AA-B4KN                 | 5.75                   | 71                | 72                  | 63                    | 82                       | 68              | 111                          | 238                              | 2100                   | ✓                  | 1000                        | <a href="http://sony.com.au">sony.com.au</a>                                 |
| Eveready RE15BP2T               | 6.00                   | 70                | 71                  | 63                    | 84                       | 59              | 109                          | 218                              | 2000                   |                    | 100s                        | <a href="http://eveready.com">eveready.com</a>                               |
| Energizer Recharge NH15BP4T     | 6.00                   | 68                | 62                  | 80                    | 83                       | 37              | 138                          | 105                              | 2450                   |                    | 100s                        | <a href="http://energizerbatteries.com.au">energizerbatteries.com.au</a>     |
| Duracell 99474895               | 6.25                   | 66                | 59                  | 76                    | 86                       | 34              | 135                          | 104                              | 2450                   |                    | 100s                        | <a href="http://duracell.com.au">duracell.com.au</a>                         |
| Arlec CPCD1392                  | 5.00                   | 64                | 62                  | 64                    | 79                       | 43              | 139                          | 105                              | 2500                   |                    | 100s                        | <a href="http://arlec.com.au">arlec.com.au</a>                               |
| Duracell Active Charge 98577668 | 7.25                   | 61                | 52                  | 62                    | 87                       | 45              | 111                          | 196                              | 2000                   | ✓                  | 100s                        | <a href="http://duracell.com.au">duracell.com.au</a>                         |
| Powertech Enekeep SB-1750       | 6.25                   | 56                | 41                  | 69                    | 84                       | 33              | 110                          | 129                              | 2000                   | ✓                  | 1000                        | <a href="http://jaycar.com.au">jaycar.com.au</a>                             |
| Vapex 92087                     | 3.75                   | 55                | 34                  | 76                    | 86                       | 29              | 141                          | 53                               | 2900                   |                    | 1000                        | <a href="http://electronicswarehouse.com.au">electronicswarehouse.com.au</a> |
| Panasonic HHR-3XPT/2B           | 3.45                   | 53                | 36                  | 62                    | 81                       | 51              | 130                          | 90                               | 2600                   |                    | 500                         | <a href="http://panasonic.com.au">panasonic.com.au</a>                       |
| Varta Power Accu 56756 412 404  | 3.75                   | 52                | 42                  | 66                    | 58                       | 52              | 110                          | 116                              | 2500                   |                    | 1000                        | <a href="http://varta-consumer.com">varta-consumer.com</a>                   |
| Powertech SB-1738               | 6.25                   | 51                | 38                  | 60                    | 80                       | 32              | 105                          | 124                              | 2500                   |                    | 1000                        | <a href="http://jaycar.com.au">jaycar.com.au</a>                             |
| Uniross Hybrio U0229609         | 3.75                   | 47                | 21                  | 69                    | 82                       | 42              | 110                          | 100                              | 2100                   | ✓                  | 100s                        | <a href="http://uniross.com">uniross.com</a>                                 |

**USING THE TABLE Score** The overall score is made up of: Endurance: 45%; Consistency: 25%; Self-discharge: 20%; Value: 10%. **Failure cycle** The charge/discharge cycle at which the collection of four batteries of each model fails to reach at least 50% of its initial charge. **Price** Recommended retail, as of September 2011. All batteries on test are only available in packs of two or four.

**Note:** The scores in this test cannot be directly compared with previous tests.



## Nutshell

- We finally find a small front loader to recommend.
- One machine only achieves top scores by washing for more than three hours – a deal-breaker for many people.

# Time out

Some washing program times are getting way too long, as **Martha Psiroukis** discovers.

**N**ormal washing machine program times are getting longer in order to save on energy and water while maintaining dirt removal ability. They manage this by relying more on the chemical action of the detergent rather than the washer's mechanical action to get clothes clean.

While this can be a good thing, it can also mean a complete change in your washing habits to accommodate the longer cycle time. In doing so, you can take advantage of off-peak or time-of-use electricity pricing if you have an appropriate meter. Washing overnight can potentially cost less – more so if washing in warm or hot water – but the longer wash time means you shouldn't need to.

To get the most out of these programs you ideally need a delay-start feature to start the program at the time that suits, and/or a rinse-hold option to prevent creasing or colour runs until the clothes are hung to dry. However, many people still prefer to do all their washing on the one day, so having a suitable range of program options is vital.

About 10 years ago, the average normal program time of a front loader was 99 minutes and 55 minutes for a top loader. These days, the average front loader wash time has crept up to 118 minutes, but only to

58 minutes for top loaders. Interestingly, the minimum normal cycle time today is 49 minutes for a front loader, compared with 87 minutes a decade ago.

Some manufacturers, such as Bosch, are making concerted efforts to keep normal program times as short as possible while still offering intensive wash options for those who need it. On the other hand, some manufacturers are increasing the normal program lengths, and although they offer fast wash programs, these are generally not recommended for full loads.

In this test, the LG WD14030D6 ran for an astonishing three hours and 10 minutes – so it's definitely not for those who do all their washing in one morning. It also uses a lot of energy relative to other machines, so don't be fooled by its low purchase price. Despite being set to cold, it still heats the water to 30°C for about 25 minutes during its first rinsing cycle. And although it has a fast wash cycle, it's only recommended for use with half a load. If cycle time isn't an issue for you or you're willing to change your washing habits, it's worth considering. ▶

## ACCESSIBILITY

CHOICE assessed the suitability of the newly tested washing machines for people with disabilities using Independent Living Centre NSW guidelines.

**For wheelchair users or people with back pain** Any front loader off the floor is easiest to use.

All front loaders on test are relatively easy to open and reach into.

**For people with upper limb dysfunction or weakness** The Fisher & Paykel WA70T60GW1 is recommended.

**For those with vision impairment** The Fisher & Paykel WA70T60GW1,

Miele W5835 and Whirlpool 6AWTW5700XW0 are the better options.

**For those with cognitive impairment** The Simpson models SWT704 and SWF85561 are the simplest to operate [though they are still not ideal].



|                 |                                        | COSTS          |                               | PERFORMANCE       |                        |                             |                      |                            |                           |                              |                   |
|-----------------|----------------------------------------|----------------|-------------------------------|-------------------|------------------------|-----------------------------|----------------------|----------------------------|---------------------------|------------------------------|-------------------|
|                 | Type                                   | Price (\$)     | Running costs (\$ / 10 years) | Overall score (%) | Dirt removal score (%) | Rinse performance score (%) | Gentleness score (%) | Water efficiency score (%) | Spin efficiency score (%) | Water used (L, normal cycle) | Energy used (kWh) |
| UP TO 5.5KG     | # Simpson EZI Sensor SWF65561          | Front          | 689 574                       | 72 (B)            | 73                     | 77                          | 72                   | 80                         | 62                        | 56                           | 0.353             |
|                 | Simpson SWT 554                        | Top / agitator | 689 599                       | 68                | 73                     | 76                          | 47                   | 70                         | 58                        | 83                           | 0.182             |
|                 | LG Fuzzy Logic WF-T556                 | Top / impeller | 599 725                       | 67                | 68                     | 83                          | 66                   | 57                         | 48                        | 118                          | 0.108             |
|                 | LG WT-H550                             | Top / impeller | 749 717                       | 67                | 66                     | 86                          | 62                   | 57                         | 52                        | 118                          | 0.097             |
|                 | Samsung SW50USP                        | Top / impeller | 549 900                       | 66                | 66                     | 94                          | 68                   | 40                         | 47                        | 151                          | 0.100             |
|                 | LG WF-T507                             | Top / impeller | 549 840                       | 64                | 67                     | 82                          | 59                   | 47                         | 47                        | 134                          | 0.122             |
| 6KG-7KG         | Asko Quattro 2000rpm W6903             | Front          | 2499 694                      | 77                | 76                     | 89                          | 73                   | 68                         | 80                        | 96                           | 0.229             |
|                 | Electrolux Time Manager EWF1074        | Front          | 899 660                       | 74 (B)            | 75                     | 79                          | 76                   | 80                         | 68                        | 69                           | 0.386             |
|                 | Fisher & Paykel WH60F60WV1             | Front          | 799 511                       | 72                | 71                     | 63                          | 72                   | 82                         | 75                        | 55                           | 0.289             |
|                 | Hoover VHD8144D                        | Front          | 799 528                       | 71                | 67                     | 63                          | 75                   | 83                         | 77                        | 58                           | 0.287             |
|                 | # Fisher & Paykel Washsmart WA70T60GW1 | Top / agitator | 749 950                       | 68                | 69                     | 87                          | 51                   | 56                         | 69                        | 153                          | 0.134             |
|                 | Fisher & Paykel WH70F60W3              | Front          | 909 469                       | 68                | 65                     | 49                          | 77                   | 85                         | 75                        | 53                           | 0.245             |
| 7.5KG OR LARGER | Ariston ARF105                         | Front          | 799 532                       | 65                | 69                     | 36                          | 75                   | 84                         | 61                        | 58                           | 0.262             |
|                 | # Samsung SW70SP                       | Top / impeller | 800 1254                      | 65                | 64                     | 96                          | 62                   | 40                         | 51                        | 209                          | 0.137             |
|                 | # Bosch WAE20262AU/01                  | Front          | 1099 379                      | 58                | 40                     | 53                          | 79                   | 84                         | 72                        | 52                           | 0.129             |
|                 | LG Inverter Direct Drive WD11020D      | Front          | 899 293                       | 57                | 53                     | 13                          | 78                   | 90                         | 75                        | 35                           | 0.142             |
|                 | # LG WD14030D6                         | Front          | 1118 915                      | 75 (C)            | 75                     | 74                          | 74                   | 84                         | 83                        | 68                           | 0.746             |
|                 | Bosch Logixx 8 WAS28440AU (A)          | Front          | 2149 623                      | 74                | 67                     | 83                          | 76                   | 78                         | 75                        | 87                           | 0.202             |
|                 | # Miele W5835                          | Front          | 2799 477                      | 73                | 73                     | 61                          | 73                   | 85                         | 81                        | 56                           | 0.235             |
|                 | Miele W5903                            | Front          | 2399 564                      | 73 (B)            | 78                     | 61                          | 72                   | 86                         | 81                        | 53                           | 0.372             |
|                 | # Electrolux EWF14811                  | Front          | 1529 593                      | 72                | 70                     | 60                          | 74                   | 85                         | 84                        | 58                           | 0.377             |
|                 | Fisher & Paykel WH80F60W2              | Front          | 1059 544                      | 72                | 71                     | 63                          | 76                   | 83                         | 73                        | 68                           | 0.236             |
|                 | LG Direct Drive WD12020D               | Front          | 999 421                       | 72                | 74                     | 49                          | 74                   | 87                         | 81                        | 50                           | 0.202             |
|                 | Miele W5741                            | Front          | 2199 464                      | 72                | 77                     | 54                          | 70                   | 85                         | 76                        | 55                           | 0.225             |
|                 | Siemens WM14S440AU                     | Front          | 1949 576                      | 71                | 61                     | 79                          | 76                   | 80                         | 75                        | 81                           | 0.185             |
|                 | V-Zug Adora SLQ                        | Front          | 4290 571                      | 71                | 59                     | 74                          | 79                   | 81                         | 82                        | 77                           | 0.207             |
|                 | # Bosch WAS24460AU                     | Front          | 1599 567                      | 70                | 62                     | 75                          | 78                   | 79                         | 70                        | 79                           | 0.184             |
|                 | Bosch WAS32742AU                       | Front          | 2599 526                      | 70                | 68                     | 58                          | 75                   | 82                         | 76                        | 73                           | 0.170             |
|                 | Samsung WF8750LSW                      | Front          | 899 511                       | 70                | 73                     | 50                          | 73                   | 83                         | 70                        | 64                           | 0.205             |
|                 | Whirlpool WFE1485BD                    | Front          | 1199 679                      | 70                | 65                     | 68                          | 72                   | 79                         | 78                        | 89                           | 0.262             |
|                 | LG TurboDrum DD WT-R107                | Top / impeller | 1299 1067                     | 69                | 70                     | 84                          | 57                   | 65                         | 62                        | 174                          | 0.156             |
|                 | Samsung WF0754WV7                      | Front          | 1199 474                      | 69                | 66                     | 60                          | 73                   | 82                         | 77                        | 68                           | 0.126             |
|                 | LG WT-H755                             | Top / impeller | 1029 852                      | 67                | 62                     | 84                          | 66                   | 62                         | 57                        | 143                          | 0.096             |
|                 | Samsung WF802RPF                       | Front          | 1299 523                      | 67                | 64                     | 55                          | 71                   | 83                         | 71                        | 67                           | 0.214             |
|                 | # Simpson SWT704                       | Top / agitator | 899 788                       | 67                | 66                     | 76                          | 57                   | 70                         | 63                        | 111                          | 0.234             |
|                 | Haier HWMP95TL                         | Top / impeller | 899 925                       | 66                | 72                     | 66                          | 53                   | 73                         | 54                        | 127                          | 0.315             |
|                 | # Whirlpool Cabrio 6AWTW5700XWD (D)    | Top / impeller | 1099 601                      | 58                | 62                     | 32                          | 59                   | 79                         | 63                        | 85                           | 0.162             |

**USING THE TABLE SCORES** The overall score is made up of: Dirt removal: 20%; Rinse performance: 20%; Gentleness: 15%; Water efficiency: 10%; Spin efficiency: 10%. **Cold wash penalty** As the majority of Australian wash in cold water straight from the tap, we have applied a small penalty in our overall score to models that cannot do a proper cold wash (at about 20°C) on the normal cycle. While the higher wash temperature slightly increase a machine's scores for dirt removal and rinse effectiveness, it also means it's using more energy than it would if it were able to do a true cold wash. Our penalty compensates for this. **Dirt removal** is accurate than the human eye, a spectrophotometer is used to measure this – differences of about 6% are visible. **Features** See What to Look For, page 62, for details. **Tap connection** Some machines need both hot and cold water to operate. Others can connect to cold water only and may need a special connector or sealing cap for the hot water inlet. A machine with a heater (front loaders only) can be particularly useful if you connect cold only, as it still gives you the option of a warm or hot wash. But a dual connection front loader connected to solar hot water can be more efficient when doing warm or hot washes. **Dimensions** are for the smallest that fits around the machine, as stated by the manufacturer. **Running costs** This is an estimate of how much it will cost for water and electricity over 10 years if you wash the equivalent of one load every day using a

| FEATURES                               |                           |                       |                          |             |                | SPECIFICATIONS                                 |               |                                    |                        | Contact |
|----------------------------------------|---------------------------|-----------------------|--------------------------|-------------|----------------|------------------------------------------------|---------------|------------------------------------|------------------------|---------|
| Woolens cycle (machine/ hand-washable) | Out-of-balance correction | Selectable spin speed | Auto-sensing water level | Extra rinse | Tap connection | Coldest wash temperature for normal wash (°C)* | Capacity (kg) | Claimed dimensions (cm, H x W x D) |                        |         |
| —/—                                    | ✓                         | ✓                     | ✓                        |             | C only         | 30                                             | 5.5           | 85 x 60 x 54                       | simpson.com.au         |         |
| ✓/—                                    |                           |                       |                          | ✓           | H & C          | Cold                                           | 5.5           | 103 x 58 x 63                      | simpson.com.au         |         |
| ✓/—                                    |                           | ✓                     | ✓                        | ✓           | H & C          | Cold                                           | 5.5           | 91 x 54 x 54                       | lge.com.au             |         |
| ✓/—                                    | ✓                         |                       | ✓                        | ✓           | H & C          | Cold                                           | 5.5           | 94 x 54 x 54                       | lge.com.au             |         |
| —/—                                    |                           |                       | ✓                        | ✓           | H & C, C       | Cold                                           | 5             | 86 x 54 x 56                       | samsung.com.au         |         |
| ✓/—                                    | ✓                         |                       | ✓                        |             | H & C          | Cold                                           | 5             | 85 x 54 x 54                       | lge.com.au             |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 6             | 85 x 60 x 59                       | asko.com.au            |         |
| —/—                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | 30                                             | 7             | 85 x 60 x 63                       | electrolux.com.au      |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 6             | 84 x 60 x 50                       | fp.com.au              |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        |             | C only         | Cold                                           | 7             | 85 x 60 x 52                       | andico.com.au          |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        |             | H & C          | Cold                                           | 7             | 105 x 60 x 60                      | fp.com.au              |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 7             | 84 x 60 x 54                       | fp.com.au              |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        |             | C only         | Cold                                           | 7             | 85 x 60 x 53                       | aristonbrand.com       |         |
| ✓/—                                    | ✓                         |                       | ✓                        |             | H & C          | Cold                                           | 7             | 106 x 61 x 67                      | samsung.com.au         |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 6.5           | 85 x 60 x 59                       | boschappliances.com.au |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        | ✓           | H & C          | Cold                                           | 7             | 85 x 60 x 55                       | lge.com.au             |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        | ✓           | H & C          | Cold                                           | 8.5           | 85 x 60 x 64                       | lge.com.au             |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 8             | 84 x 60 x 59                       | boschappliances.com.au |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | H & C          | Cold                                           | 7.5           | 85 x 60 x 62                       | miele.com.au           |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | H & C          | 30                                             | 7.5           | 85 x 60 x 62                       | miele.com.au           |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 8             | 85 x 60 x 63                       | electrolux.com.au      |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 8             | 84 x 60 x 59                       | fp.com.au              |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        | ✓           | H & C          | Cold                                           | 7.5           | 85 x 60 x 55                       | lge.com.au             |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 7.5           | 85 x 60 x 62                       | miele.com.au           |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 8             | 85 x 60 x 59                       | siemens.com.au         |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 8             | 85 x 60 x 60                       | vzug.com.au            |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 7.5           | 85 x 60 x 60                       | boschappliances.com.au |         |
| ✓/✓                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 8             | 85 x 60 x 59                       | boschappliances.com.au |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 7.5           | 85 x 60 x 60                       | samsung.com.au         |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 8.5           | 85 x 60 x 60                       | whirlpool.com.au       |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        | ✓           | H & C          | Cold                                           | 10            | 110 x 69 x 72                      | lge.com.au             |         |
| ✓/—                                    | ✓                         | ✓                     | ✓                        | ✓           | C only         | Cold                                           | 7.5           | 84 x 60 x 60                       | samsung.com.au         |         |
| ✓/—                                    | ✓                         |                       | ✓                        |             | H & C          | Cold                                           | 7.5           | 100 x 62 x 64                      | lge.com.au             |         |
| ✓/—                                    |                           | ✓                     |                          | ✓           | C only         | Cold                                           | 8             | 85 x 60 x 60                       | samsung.com.au         |         |
| ✓/—                                    | ns                        |                       |                          | ✓           | H & C          | Cold                                           | 7.5           | 107 x 67 x 68                      | simpson.com.au         |         |
| —/—                                    |                           |                       |                          |             | H & C          | Cold                                           | 9.5           | 111 x 69 x 69                      | haierlife.com.au       |         |
| —/—                                    | ✓                         | ✓                     | ✓                        | ✓           | H & C          | Cold                                           | 8             | 107 x 70 x 69                      | whirlpool.com.au       |         |

ycle, based on 20c/kWh of electricity and \$1.50 per 1000L for water. It also includes electricity used when the machine is connected to a power not in use. It does not include detergent, which is the largest ongoing cost of running a washing machine. **Price** Recommended or average of August 2011. **TABLE NOTES** # Newly tested model. \* Cold = cold tap water (20°C). ns Not stated. (A) The manufacturer recommends using rinse button for a full load. Using this option will most likely improve the dirt removal and overall score, but time will also be increased. (B) Penalty because the machine cannot do a cold wash. (C) Even though this machine has a "cold" wash, it heats the first rinse water to 30°C, so is not for this. (D) The manufacturer recommends using the extra heavy soiling level (we used medium) and the deep clean option for a full load. This option will most likely improve the dirt removal and overall score, but it will use more energy and time and be harsher on your clothes.

## Missing models

CHOICE has tested so many washing machines they can't all fit in our table, so we've removed models that have been discontinued (but may still be available in some stores), as well as some that don't perform well overall. For full details, visit [choice.com.au/washers](http://choice.com.au/washers)

## Loaded message

The new **Whirlpool 6AWTW5700XW0** is another high-efficiency top loader that uses significantly less water than a traditional model. But we found the loading pattern for this machine is extremely important in achieving optimum dirt removal results. The key to the best possible wash is that the load must be distributed evenly around the drum while keeping the impeller visible (see [choice.com.au/washingmachinesbg](http://choice.com.au/washingmachinesbg) for more on impellers). This ensures the impeller is free to turn over the clothes, pulling them through the shallow detergent solution. ▶



## WHAT TO BUY

UP TO 5.5KG  
[New models]



**72%**  
**Simpson EZI sensor**  
**SWF85561, \$689**

### Good points

- Very good water efficiency.

### Bad points

- No time-to-go display.
- No woollens wash.
- No cold wash option (minimum 30°C).

## 7.5KG OR LARGER

[Worth considering\*]



**75%**  
**LG WD14030D6, \$1118**

### Good points

- Very good water and spin efficiency.
- Favourite-program feature.
- Woollens wash, machine only.
- Extra rinse option.

### Bad points

- Extremely long cycle time.
- Comparatively expensive to run.
- Heats to 30°C during its first rinsing cycle, even though it's set to cold.

The following models score in their categories, but there are many washing machines that perform well overall. For full profiles of previously recommended but still available machines in our What to Buy list, see the relevant CHOICE issue brackets) or go online to [choice.com.au/washers](http://choice.com.au/washers).

**MEDIUM (6KG-7KG)**  
**Asko Quattro W6903 (fr)**  
\$2499 (April 11)

77%

**Electrolux Time Manager EWF1074 (fr)**  
\$899 (August 09)

74%

**LARGE (7.5KG OR LARGER)**  
**Bosch Logixx 8 WAS28440AU (fr)**  
\$2149 (March 09)

74%

\* If a long program time isn't a problem for you or you are willing to change your washing habits

## WHAT TO LOOK FOR

**Woollens cycle (machine/hand-washable) programs** relate to the instructions on the garment itself, advising whether it's machine-washable or for hand-wash only. Washers with a tick for hand-wash claim this program is gentle enough for hand-wash only items.

**Out-of-balance correction** automatically detects and redistributes an out-of-balance load, either by spinning slowly

before the full spin cycle or taking in more water (which is what most top loaders do). If you're concerned about high water use, opt for a machine without this feature or likely to go out of balance.

**Selectable spin speed** allows changed spin speeds on some programs. A higher speed will result in drier clothes (good when using a dryer), while a lower speed is good for delicate fabrics that crease easily.

**Auto-sensing water level** optimises water, energy and time by automatically adjusting the water level according to the load and/or fabric type.

Some machines also adjust the washing action.

For profiles and to compare all washing machines on test, go to [choice.com.au/washers](http://choice.com.au/washers)

**Extra rinse stage** to the wash cycle can be useful if you're sensitive to detergents.

**Tap connection** If you only have a cold water tap in your laundry, choosing a front loader means you can still wash in warm or hot water when needed, as the machine will heat the water itself. To take advantage of less-expensive hot water systems, such as solar, look for a hot and cold water connecting machine – but also be aware that most front loaders with hot and cold connections only draw hot water when the wash temperature is set to 60°C. See CHOICE March 2010 for more on this.

**Reliability** For the results of our latest reliability survey, go to [choice.com.au/appliance/reliability](http://choice.com.au/appliance/reliability).



## Ice age

**Matthew Steen** explains why your new fridge may not be as new as you think.

### Nutshell

- ▶ "New" fridges can sit in a warehouse or on a shop floor for years before they're sold.
- ▶ We want all appliances to be clearly labelled with the date of manufacture so consumers can make informed choices.

**W**hen shopping for a new fridge, many people assume it is exactly that – new. However, it's not unheard of to have a fridge sit in a warehouse or on the shop floor for months or even years at a time before it's sold. Who knows how many times it has been moved around, knocked about and possibly even damaged in that time?

It's not impossible to check the manufacture date of a fridge before buying it, but it can involve a bit of sleuthing as it's often encoded for manufacturer use. For instance, out of the six newly tested fridges here, three have the dates inside their door in the format of a serial number. The first digit represents the year and the next two the week in that year the fridge was manufactured.

Most people are unlikely to look for the label of the fridge to check it. Even if the coding can be clearly seen, that's only going to help if you're purchasing the floor sample. So what guarantee ▶



## Where's my fridge?

**W**e regularly check whether the fridges in our table (page 66) have been discontinued. There are a few reasons you may not be able to find one of our top-performing fridges at your local retailer. They might not hold stock

in store, or may have sold out. They could also earn a higher commission on sales of another brand and be steering you towards that. Check whether they can order in the model you're after, and take your business elsewhere if they can't.



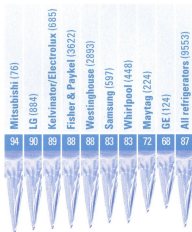
## Reliability

**F**ridges are generally a reliable product. **Westinghouse** and **Fisher & Paykel** models consistently make our What to Buy lists, and both rank well in our reliability survey. Of problems with both these brands, 21%-25% relate to door seals, temperature control or icing-up of food.

If you own a Maytag or GE fridge, you're more likely to experience problems. Of Maytag owners, 31% of those who had problems experienced water leakage and 24% problems with temperature control. Of problems experienced with GE fridges, 20% related to temperature control and 19% to controls/switches or the thermostat.

It's heartening to see that our top-performing brands in tests, Westinghouse, Electrolux and Fisher & Paykel, are also the brands members say they are most likely to buy again.

Our survey found 17% of problems with new fridges are associated with controls/switches or the thermostat, 17% with temperature control and 15% with excessive noise.



Percentage of respondents indicating no problems in the 12 months prior to May 2010. The number in brackets is the number of responses received.

## What to look for

**Rollers** are useful for moving the fridge easily and cleaning behind it. The fridge should also have adjustable feet or rollers for levelling. Four rollers are better than two, provided they have brakes or adjustable feet to secure the fridge in place.

A **chiller** is important for storing meat, fish and poultry (fresh or cooked) at a safe temperature, for longer. If you're choosing a fridge with this feature, the chiller's temperature should be close to zero and ideally have a separate temperature control.

A **dairy compartment** is convenient for keeping butter and hard cheeses slightly soft.

**Crisper** Look for a well-sealed crisper drawer to keep vegetables fresh; check that the fridge's air outlets don't blow on to it, as this will dry food out faster. A good crisper means you don't have to put

your fruit and veggies in plastic bags. In a fridge with one crisper drawer it's usually the full width of the fridge; two crispers are usually each half the width, but some fridges have a wider and a narrower one.

**Fresh food shelves** should be easy to remove and replace and the range of shelf positions should suit your needs. Can you stand soft-drink or wine bottles in the door shelves, for example? Split shelves can be handy for this.

**Removable shelves** Having all shelves removable when the door is at 90°C is important for access and cleaning when the fridge has to be positioned with the door hinge next to a wall.

**Door hinge** Be sure to buy a fridge with a door hinge position that suits your kitchen layout. If you tend to move house a lot, opt for a door/hinge that is reversible (that is, can be

switched to swing from right to left or back again), though you may have to purchase a kit and/or call in a service person to do this.

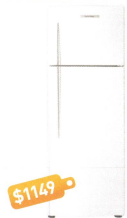
do you have when buying a new fridge that it's not a few years old?

One solution would be to put the date of manufacture in an obvious and easily accessible area, or at the very least to simplify the coding so consumers can easily read it. This would mean that with a quick glance at the label, you could be assured the fridge delivered has the same date as the one you ordered, or newer if possible. If a floor sample has an older date, you could bargain for a lower price. If you are unhappy with the date on the model delivered, you may want to query the retailer and ask for a model with a more recent date.

Many products purchased require a date of manufacture. It can be argued that the older a fridge is, the more likely the deterioration of elements such as seals. For the benefit of consumers, CHOICE would like to see all appliances clearly labelled with the year of manufacture to ensure that new really means new. ▶



## WHAT TO BUY



\$1149

**300L-380L**  
**Fisher & Paykel**  
 E381T Tasman, (T), May 06



\$1269

**300L-380L**  
**Westinghouse**  
 WBM3700WB, (B), May 09



\$2229

**381L-450L**  
**Fisher & Paykel** E442B  
 Stainless, (B), Dec 10/Jan 11



Best Buy

\$1649

**381L-450L**  
**Fisher & Paykel** E406B  
 Elegance, (B), May 09



\$2339

**451L-525L**  
**Fisher & Paykel**  
 E521T Elegance, (T), Nov 06



\$1899

**451L-525L**  
**Westinghouse**  
 WBM5100WB, (B), Sept 09



Best Buy



\$2149

**MORE THAN 525L, INCLUDING FRENCH DOOR**  
**Haier**  
 HTD647AS, (FD) (B), Apr 11



\$3599

**Fisher & Paykel**  
 RF610ADUX, (FD) (B), Nov 07

**T**hese are the best fridges in each size range, with a minimum of 60% for all aspects of temperature performance except the recommended setting score. We exclude this because you can change the recommended setting to get a better result.

Best Buys are top performers with a good reliability rating that are relatively cheap to buy and run. Where possible, we've included both top and bottom freezers in relevant size categories. There are still no fridges in the smallest sizes that meet these criteria.

(B) Freezer on bottom. (T) Freezer on top. (FD) French doors.

For profiles of the models listed here, see the CHOICE issue indicated alongside it or log on to [choice.com.au/fridges](http://choice.com.au/fridges).



\$1899

**SIDE-BY-SIDE**  
**Westinghouse** WSE6100WA, Nov 05

|                    |                            |         |                 |            | PERFORMANCE       |                                   |                       |                 |                      |                          |                               |                             |                                            |                  | FA      |
|--------------------|----------------------------|---------|-----------------|------------|-------------------|-----------------------------------|-----------------------|-----------------|----------------------|--------------------------|-------------------------------|-----------------------------|--------------------------------------------|------------------|---------|
|                    |                            | Freezer | Number of doors | Price (\$) | Overall score (%) | Temperature performance score (%) | Fluctuation score (%) | Range score (%) | Uniformity score (%) | Ambient change score (%) | Recommended setting score (%) | Energy efficiency score (%) | Claimed / measured energy use (kWh / year) | Noise level (dB) | Chiller |
| < 300L             | Westinghouse WTB2500WB     | Top     | 2               | 739        | 70                | 67                                | 80                    | 70              | 75                   | 33                       | 85                            | 82                          | 415 / 403                                  | 33               | ✓       |
|                    | Mitsubishi MR-260B-W-A     | Top     | 2               | 912        | 68                | 64                                | 50                    | 75              | 65                   | 66                       | 75                            | 83                          | 425 / 400                                  | 34               | ✓       |
|                    | Westinghouse WTB2300WB-XAU | Top     | 2               | 689        | 67                | 63                                | 80                    | 70              | 60                   | 29                       | 80                            | 81                          | 411 / 403                                  | 39               | ✓       |
|                    | # LG GN-253VW              | Top     | 2               | 699        | 65                | 61                                | 45                    | 70              | 70                   | 58                       | 80                            | 81                          | 435 / 422                                  | 47               | ✓       |
|                    | Whirlpool WRI21UW          | Top     | 2               | 699        | 61                | 56                                | 45                    | 85              | 65                   | 22                       | 70                            | 83                          | 415 / 372                                  | 42               | ✓       |
|                    | Mitsubishi MR-C375B-ST-A   | Bottom  | 3               | 1250       | 58                | 52                                | 40                    | 45              | 50                   | 81                       | 65                            | 79                          | 500 / 470                                  | 30               | ✓       |
| SMALL (300L-390L)  | Fisher & Paykel E381T      | Top     | 2               | 1149       | 79                | 77                                | 60                    | 80              | 85                   | 90                       | 80                            | 85                          | 433 / 424                                  | 35               |         |
|                    | Westinghouse WBM3700WB     | Bottom  | 2               | 1269       | 76                | 74                                | 65                    | 90              | 75                   | 67                       | 70                            | 82                          | 495 / 481                                  | 38               |         |
|                    | Fisher & Paykel E372B      | Bottom  | 2               | 1399       | 74                | 72                                | 50                    | 85              | 70                   | 85                       | 85                            | 82                          | 498 / 482                                  | 35               |         |
|                    | Samsung SR364MW            | Top     | 2               | 949        | 70                | 66                                | 60                    | 70              | 70                   | 66                       | 70                            | 84                          | 450 / 434                                  | 39               | ✓       |
| MEDIUM (391L-450L) | Fisher & Paykel E442B      | Bottom  | 2               | 2229       | 78                | 78                                | 60                    | 90              | 85                   | 81                       | 85                            | 79                          | 563 / 573                                  | 30               |         |
|                    | Fisher & Paykel E406B      | Bottom  | 2               | 1649       | 76                | 76                                | 65                    | 90              | 60                   | 90                       | 80                            | 78                          | 564 / 559                                  | 30               |         |
|                    | # Electrolux EBM4300SC     | Bottom  | 2               | 1959       | 75                | 72                                | 70                    | 90              | 55                   | 69                       | 75                            | 88                          | 406 / 395                                  | 33               | ✓       |
|                    | Fisher & Paykel E440T      | Top     | 2               | 2129       | 74                | 72                                | 50                    | 85              | 80                   | 77                       | 85                            | 83                          | 488 / 494                                  | 30               |         |
|                    | # Samsung SR432NW          | Top     | 2               | 999        | 74                | 72                                | 65                    | 80              | 75                   | 77                       | 50                            | 84                          | 455 / 479                                  | 36               |         |
|                    | Fisher & Paykel E402B      | Bottom  | 2               | 1649       | 73                | 72                                | 60                    | 85              | 65                   | 80                       | 80                            | 78                          | 528 / 561                                  | 35               |         |
|                    | Electrolux ETM4407SC       | Top     | 2               | 2589       | 72                | 68                                | 75                    | 90              | 65                   | 33                       | 70                            | 90                          | 369 / 353                                  | 37               |         |
|                    | Kelvinator KTM4400WB       | Top     | 2               | 1219       | 72                | 69                                | 65                    | 90              | 70                   | 45                       | 80                            | 84                          | 486 / 464                                  | 41               |         |
|                    | Westinghouse WBM4300WB     | Bottom  | 2               | 1529       | 72                | 70                                | 75                    | 85              | 55                   | 66                       | 50                            | 81                          | 530 / 529                                  | 37               |         |
|                    | Kelvinator KBM4300WB       | Bottom  | 2               | 1399       | 71                | 69                                | 80                    | 65              | 85                   | 53                       | 30                            | 78                          | 565 / 580                                  | 39               |         |
|                    | # Samsung SR434MNP         | Top     | 2               | 1199       | 70                | 67                                | 50                    | 75              | 70                   | 83                       | 50                            | 83                          | 455 / 489                                  | 36               |         |
|                    | # Kelvinator KTM4200WB     | Top     | 2               | 1159       | 68                | 64                                | 60                    | 80              | 70                   | 43                       | 70                            | 82                          | 456 / 499                                  | 37               |         |
| LARGE (451L-525L)  | Fisher & Paykel E521T      | Top     | 2               | 2339       | 78                | 76                                | 60                    | 85              | 85                   | 77                       | 80                            | 85                          | 508 / 496                                  | 35               |         |
|                    | Westinghouse WBM5100WB     | Bottom  | 2               | 1899       | 76                | 74                                | 75                    | 85              | 70                   | 65                       | 55                            | 84                          | 560 / 526                                  | 39               |         |
|                    | Electrolux EBM5100SC       | Bottom  | 2               | 2379       | 74                | 70                                | 70                    | 80              | 65                   | 62                       | 80                            | 89                          | 428 / 401                                  | 34               |         |
|                    | Electrolux EBM5107SC       | Bottom  | 2               | 2849       | 74                | 71                                | 70                    | 75              | 65                   | 70                       | 70                            | 88                          | 428 / 422                                  | 32               | ✓       |
|                    | Kelvinator KBM5100MB       | Bottom  | 2               | 1799       | 74                | 72                                | 80                    | 70              | 80                   | 57                       | 60                            | 81                          | 589 / 593                                  | 38               |         |
|                    | Bosch KGN53X70AU/08        | Bottom  | 2               | 1899       | 73                | 70                                | 80                    | 75              | 70                   | 53                       | 60                            | 83                          | 505 / 490                                  | 37               | ✓       |
|                    | Fisher & Paykel E522BRXFDU | Bottom  | 2               | 2829       | 72                | 70                                | 55                    | 85              | 70                   | 77                       | 50                            | 79                          | 636 / 627                                  | 34               |         |
|                    | Fisher & Paykel E522B      | Bottom  | 2               | 2059       | 71                | 69                                | 60                    | 80              | 50                   | 87                       | 80                            | 78                          | 596 / 642                                  | 37               |         |
|                    | Kelvinator KTM5200MB       | Top     | 2               | 1589       | 68                | 64                                | 80                    | 60              | 70                   | 44                       | 50                            | 82                          | 518 / 556                                  | 33               |         |
|                    | # Samsung SR511ENW         | Top     | 2               | 1299       | 65                | 60                                | 35                    | 75              | 65                   | 75                       | 50                            | 84                          | 488 / 512                                  | 43               |         |
| > 525L & FD        | Haier HTD647AS             | Bottom  | 3               | 2149       | 79                | 79                                | 90                    | 75              | 80                   | 65                       | 90                            | 80                          | 690 / 698                                  | 38               | ✓       |
|                    | Fisher & Paykel RF610A     | Bottom  | 3               | 3599       | 78                | 78                                | 70                    | 80              | 80                   | 83                       | 85                            | 79                          | 695 / 688                                  | 37               |         |
|                    | Electrolux EQE6007SB-NAU   | Bottom  | 4               | 3699       | 70                | 67                                | 40                    | 85              | 90                   | 85                       | 70                            | 84                          | 616 / 661                                  | 34               | ✓       |
|                    | Electrolux EHE5107SA       | Bottom  | 3               | 2869       | 63                | 58                                | 45                    | 90              | 50                   | 47                       | 50                            | 82                          | 555 / 551                                  | 34               | ✓       |
| SIDE-BY-SIDE       | Westinghouse WSE6100WA     | Left    | 2               | 1899       | 77                | 76                                | 75                    | 80              | 60                   | 90                       | 75                            | 79                          | 687 / 705                                  | 41               |         |
|                    | Bosch KAN56V10AU (A)       | Left    | 2               | 2049       | 75                | 73                                | 60                    | 80              | 80                   | 75                       | 85                            | 82                          | 630 / 636                                  | 37               |         |
|                    | LG GC-L1975TF              | Left    | 2               | 2199       | 75                | 74                                | 70                    | 80              | 70                   | 76                       | 70                            | 81                          | 638 / 645                                  | 33               |         |
|                    | Daewoo FRS-U20ICW          | Left    | 2               | 1499       | 74                | 72                                | 60                    | 80              | 75                   | 74                       | 90                            | 81                          | 650 / 665                                  | 38               | (C)     |
|                    | Bosch KAN58A40AU (B)       | Left    | 2               | 2999       | 72                | 71                                | 70                    | 70              | 70                   | 70                       | 90                            | 74                          | 750 / 758                                  | 38               |         |
|                    | Haier HSB5562IS            | Left    | 2               | 2499       | 69                | 69                                | 85                    | 50              | 60                   | 88                       | 35                            | 70                          | 743 / 771                                  | 39               |         |
|                    | Samsung SRS684GDHSS        | Left    | 2               | 3499       | 67                | 65                                | 35                    | 90              | 60                   | 85                       | 65                            | 76                          | 847 / 786                                  | 37               |         |

**SPECIFICATIONS**

| Fresh food shelves/shelf positions | Rollers | All shelves removable at 90° | Door hinge position | Dimensions (mm, H x W x D) | Claimed total volume (L) | Claimed volume, fresh food (L) | Claimed volume, freezer (L) | Contact                  | 10-year running costs (\$) |
|------------------------------------|---------|------------------------------|---------------------|----------------------------|--------------------------|--------------------------------|-----------------------------|--------------------------|----------------------------|
| 2/7                                | ✓       |                              | Rev                 | 1491 x 542 x 620           | 246                      | 167                            | 79                          | westinghouse.com.au      | 806                        |
| 3/5                                | ✓       |                              | R                   | 1592 x 555 x 654           | 260                      | 185                            | 75                          | mitsubishieletric.com.au | 800                        |
| 3/7                                |         |                              | Rev                 | 1389 x 542 x 620           | 230                      | 161                            | 65                          | westinghouse.com.au      | 806                        |
| 2/4                                |         |                              | R                   | 1605 x 537 x 604           | 253                      | 179                            | 74                          | lge.com.au               | 844                        |
| 2/3                                | ✓       | ✓                            | Rev                 | 1450 x 560 x 670           | 212                      | 149                            | 63                          | whirlpool.com.au         | 744                        |
| 2/3                                | ✓       | ✓                            | R                   | 1678 x 600 x 656           | 276                      | 272                            | 103                         | mitsubishieletric.com.au | 940                        |
| 3/18                               | ✓       | ✓                            | Rev                 | 1595 x 635 x 712           | 380                      | 283                            | 97                          | fp.com.au                | 848                        |
| 2/7                                | ✓       |                              | R or L              | 1620 x 652 x 709           | 365                      | 243                            | 122                         | westinghouse.com.au      | 962                        |
| 2/13                               | ✓       | ✓                            | R or L              | 1595 x 635 x 736           | 373                      | 250                            | 123                         | fp.com.au                | 964                        |
| 2/5                                |         |                              | R                   | 1687 x 670 x 660           | 365                      | 245                            | 120                         | samsung.com.au           | 868                        |
| 3/17                               | ✓       |                              | R                   | 1695 x 680 x 730           | 442                      | 307                            | 135                         | fp.com.au                | 1146                       |
| 3/13                               | ✓       |                              | R or L              | 1595 x 680 x 736           | 404                      | 271                            | 133                         | fp.com.au                | 1118                       |
| 2/8                                | ✓       |                              | R or L              | 1720 x 703 x 709           | 430                      | 300                            | 131                         | electrolux.com.au        | 790                        |
| 3/20                               | ✓       |                              | R                   | 1695 x 680 x 734           | 447                      | 342                            | 105                         | fp.com.au                | 988                        |
| 3/4                                | ✓       | ✓                            | R                   | 1701 x 725 x 717           | 434                      | 301                            | 133                         | samsung.com.au           | 958                        |
| 3/10                               | ✓       |                              | R or L              | 1695 x 635 x 730           | 403                      | 280                            | 123                         | fp.com.au                | 1122                       |
| 3/17                               | ✓       |                              | R or L              | 1720 x 700 x 745           | 442                      | 339                            | 103                         | electrolux.com.au        | 706                        |
| 3/10                               | ✓       |                              | R or L              | 1720 x 703 x 703           | 431                      | 300                            | 131                         | kelvinator.com.au        | 928                        |
| 3/10                               | ✓       |                              | R or L              | 1720 x 703 x 709           | 431                      | 300                            | 131                         | westinghouse.com.au      | 1058                       |
| 2/10                               | ✓       | ✓                            | R or L              | 1720 x 703 x 703           | 442                      | 339                            | 103                         | kelvinator.com.au        | 1160                       |
| 3/5                                | ✓       | ✓                            | R                   | 1701 x 725 x 717           | 434                      | 301                            | 133                         | samsung.com.au           | 978                        |
| 3/10                               | ✓       |                              | R or L              | 1640 x 703 x 709           | 420                      | 313                            | 103                         | kelvinator.com.au        | 998                        |
| 3/20                               | ✓       |                              | R or L              | 1695 x 790 x 734           | 517                      | 400                            | 117                         | fp.com.au                | 992                        |
| 3/10                               | ✓       |                              | R or L              | 1720 x 803 x 709           | 504                      | 348                            | 156                         | westinghouse.com.au      | 1052                       |
| 2/8                                | ✓       | ✓                            | R or L              | 1720 x 803 x 745           | 510                      | 349                            | 156                         | electrolux.com.au        | 802                        |
| 2/8                                | ✓       |                              | R                   | 1702 x 790 x 612           | 505                      | 349                            | 156                         | electrolux.com.au        | 844                        |
| 2/10                               | ✓       | ✓                            | R or L              | 1720 x 803 x 703           | 505                      | 349                            | 156                         | kelvinator.com.au        | 1186                       |
| 3/4                                | ✓       |                              | Rev                 | 1700 x 700 x 750           | 451                      | 332                            | 119                         | bosch-home.com.au        | 980                        |
| 3/17                               | ✓       | ✓                            | R                   | 1700 x 790 x 736           | 519                      | 360                            | 159                         | fp.com.au                | 1254                       |
| 3/17                               | ✓       | ✓                            | R or L              | 1700 x 790 x 736           | 519                      | 360                            | 159                         | fp.com.au                | 1284                       |
| 3/12                               | ✓       | ✓                            | R                   | 1702 x 790 x 612           | 518                      | 396                            | 122                         | kelvinator.com.au        | 1112                       |
| 3/4                                | ✓       | ✓                            | R                   | 1741 x 772 x 751           | 512                      | 355                            | 157                         | samsung.com.au           | 1024                       |
| 4/15(D)                            | ✓       | ✓                            | na                  | 1770 x 910 x 710           | 647                      | 423                            | 211                         | haierappliances.com.au   | 1396                       |
| 2/14                               | ✓       |                              | na                  | 1780 x 900 x 730           | 614                      | 433                            | 181                         | fp.com.au                | 1376                       |
| 2/4                                | ✓       | ✓                            | na                  | 1720 x 890 x 818           | 602                      | 370                            | 232                         | electrolux.com.au        | 1322                       |
| 3/8                                | ✓       |                              | na                  | 1702 x 790 x 612           | 505                      | 349                            | 156                         | electrolux.com.au        | 1102                       |
| 3/12                               | ✓       |                              | na                  | 1754 x 898 x 741           | 606                      | 357                            | 249                         | westinghouse.com.au      | 1410                       |
| 3/7                                | ✓       |                              | na                  | 1800 x 903 x 733           | 618                      | 377                            | 241                         | bosch-home.com.au        | 1272                       |
| 3/9                                | ✓       |                              | na                  | 1758 x 894 x 690           | 567                      | 353                            | 214                         | lge.com.au               | 1050                       |
| 3/6                                | ✓       |                              | na                  | 1790 x 895 x 730           | 618                      | 377                            | 241                         | daewooelectronics.com.au | 1330                       |
| 2/5                                | ✓       |                              | na                  | 1800 x 903 x 733           | 603                      | 377                            | 226                         | bosch-home.com.au        | 1516                       |
| 3/9                                | ✓       | ✓                            | na                  | 1768 x 890 x 770           | 560                      | 348                            | 212                         | haierappliances.com.au   | 1548                       |
| 4/5                                | ✓       |                              | na                  | 1780 x 912 x 737           | 684                      | 429                            | 255                         | samsung.com.au           | 1572                       |

**USING THE TABLE**

**Scores** The overall score is made up of:

Temperature performance: 80%

Energy efficiency: 20%

**Temperature performance** This score is

made up of:

Fluctuation: 30%;

Range: 25%;

Uniformity: 20%;

Ambient change: 20%;

Recommended setting: 5%.

**Energy efficiency** is based on the fridge's energy consumption, taking into account its size.

**Features** See What to Look For, page 64.

**Noise level** These are comparative measurements

taken 1m up and 1m away from the fridge during

normal running. Fridges can sound noticeably

louder as the compressor starts and stops and

may make unusual noises during automatic

defrosting.

**Claimed volumes** This is how much air space

the fridge has to cool; less space is available for

storage. Use the volumes to get an idea of how

big the freezer is compared with the fresh

food compartment.

**10-year running costs** are calculated at a rate

of 20c per kWh. A 10-year period gives a useful

indication of the long-term differences between

high and low energy use – and you should be able

to expect your fridge to last at least this long.

**Price** Recommended retail, as of August 2011.

Many fridges are available in other styles and

finishes, at a different price. Some can also be

built into cabinets with a door kit that matches

your kitchen cupboards.

**TABLE NOTES**

# Newly tested model.

na Not applicable – doors are side-by-side.

Rev Reversible door.

(A) The Bosch KAN56V40AU (\$2249) is technically

similar and is expected to perform the same.

(B) The Bosch KAN58A70AU (\$3499) is technically

similar and is expected to perform the same.

(C) This chiller was too warm in our tests for

optimal storage of highly perishable foods.

(D) Four half-width shelves.

For details of all fridges we've tested, including those not in the table here, log on to [choice.com.au/fridges](http://choice.com.au/fridges)



## Nutshell

- The split-system, reverse-cycle air conditioners on test are suitable for large, open-plan living areas.
- New Minimum Energy Performance Standards (MEPS) taking effect this month ensure new models are more efficient than ever before.

572,000

air conditioners were sold in Australia in 2010

287,000

of these were reverse-cycle inverter split-system models

# The rebirth of cool

Air conditioner efficiency continues to improve, but you still need to choose carefully, says **Chris Barnes**.

**R**everse-cycle air conditioners are the most popular form of cooling system in Australia today and the second-most popular form of heating. Usage varies widely across the country, but regardless of where you live in our wide brown land, one thing we all face is the rising cost of electricity and the need to choose appliances that use as little energy as possible.

Energy efficiency regulations have driven manufacturers to produce increasingly efficient air conditioners over the past few years. The cooling star rating you see on models in store is now based on the unit's Annual Energy Efficiency Rating (AEER), meaning that as well as operational efficiency, its standby and other non-operational power usage are also factored in. Similarly, the heating star rating is based on the Annual Coefficient of Performance (ACOP). ►

|                                                   | Price (\$) | PERFORMANCE       |                              |                              |             |                         |
|---------------------------------------------------|------------|-------------------|------------------------------|------------------------------|-------------|-------------------------|
|                                                   |            | Overall score (%) | Cooling efficiency score (%) | Heating efficiency score (%) | Airflow (%) | Standby power score (%) |
| LG E22AWN NC11 / R22AWN UC11                      | 1899       | 82                | 88                           | 94                           | 63          | 87                      |
| Mitsubishi Electric MSZ / MUZ-GE71VA              | 2812       | 75                | 80                           | 72                           | 77          | 69                      |
| Fujitsu ASTG24LVCA                                | 2919       | 73                | 85                           | 69                           | 68          | 63                      |
| Hitachi RAS60YHA2 (A)                             | 1699       | 71                | 71                           | 85                           | 68          | 39                      |
| Mitsubishi Heavy Industries DXK21Z4-S / DXC21Z4-S | 1649       | 71                | 81                           | 69                           | 77          | 49                      |
| Midea MSX24M3                                     | 1649       | 67                | 69                           | 66                           | 51          | 93                      |
| Panasonic CS / CU-E21LKR                          | 2149       | 66                | 68                           | 63                           | 72          | 56                      |

**USING THE TABLE** Price Recommended or average retail as of September 2011, or the price we paid in June 2011. **Scores** The overall score is made up of: Cooling efficiency: 30%; Heating efficiency: 30%; Airflow: 20%; Standby power: 10%; Ease of use: 10%. We've changed the scoring to give cooling and heating efficiency the same weight, as when usage is averaged across Australia, reverse-cycle air conditioners used for roughly the same number of hours for cooling and heating. We've also rescaled the scoring from previous tests, as some new models are more powerful and efficient. Efficiency scores are comparative ratings rather than the actual electrical efficiency; a model scoring 90%



## WHAT TO BUY



**82%**  
LG E22AWN NC11/  
R22AWN UC11, \$1899

## Good points

- Excellent heating efficiency.
- Very good cooling efficiency.
- Very good standby power consumption.

## Bad points

- Airflow at high fan speed is less powerful than most other models on test.
- Comparatively less reliable air conditioner brand.

## ABOUT THE REST

The **Mitsubishi Electric** has very good cooling efficiency, and good heating efficiency and airflow. It was recommended in our previous report (*CHOICE*, October 2010) but we've rescaled the scores to allow for improved efficiencies, so the Mitsubishi Electric scores turned out slightly lower this time around.

The **Fujitsu, Mitsubishi Heavy Industries and Hitachi** are let down by their lower scores in some areas (see the table, below) but they're good overall performers and are worth considering.

The **Midea** has only OK cooling and heating efficiency and a comparatively



limited range of airflow settings, although it does have the lowest standby power consumption in the test.

The **Panasonic** also has only OK cooling and heating efficiency.

## WHAT'S MISSING?

**M**odels manufactured or imported after October 2011 have to meet tougher energy-efficiency conditions (Minimum Energy Performance Standards, or MEPS), so most manufacturers are discontinuing their current line-up

and introducing new models that meet the new requirements. As a result, we couldn't test several brands – including Daikin, DeLonghi, Haier, Kelvinator, Samsung, Sharp, Teco and Toshiba – as they didn't have new models out in time for our test.

|                     |                       |               |                                               |                                            | FEATURES                |                |                 |               |            | SPECIFICATIONS                          |                                          |                           |                           |  |
|---------------------|-----------------------|---------------|-----------------------------------------------|--------------------------------------------|-------------------------|----------------|-----------------|---------------|------------|-----------------------------------------|------------------------------------------|---------------------------|---------------------------|--|
|                     | Maximum capacity (kW) |               |                                               |                                            | Number of fan speeds ** | Fast operation | Quiet operation | Fan-only mode | Sleep mode | Dimensions, indoor unit (cm, H x W x D) | Dimensions, outdoor unit (cm, H x W x D) | Contact                   | Annual running costs (\$) |  |
|                     | Measured cooling      | Rated cooling | Measured heating (at 2°C outdoor temperature) | Rated heating (at 7°C outdoor temperature) |                         |                |                 |               |            |                                         |                                          |                           |                           |  |
| ter / medium        | 6.6                   | 6.3           | 6.9                                           | 7.1                                        | 3                       | ✓              |                 | ✓             | ✓ (B)      | 32.5 x 103 x 25.5                       | 80 x 87 x 32                             | lge.com.au                | 352                       |  |
| h quieter / quieter | 7.2                   | 7.1           | 7.7                                           | 8.1                                        | 4                       | ✓              | ✓               |               |            | 32.5 x 109.5 x 23.5                     | 88 x 84 x 33                             | mitsubishielectric.com.au | 406                       |  |
| ter / medium        | 5.8                   | 7.0           | 6.7                                           | 7.5                                        | 3                       |                | ✓               | ✓             | ✓ (B)      | 28.5 x 78.5 x 23                        | 62 x 79 x 29                             | fujitsugeneral.com.au     | 408                       |  |
| h quieter / quieter | 5.1                   | 6.0           | 4.6                                           | 7.0                                        | 3                       |                | ✓               | ✓             | ✓          | 29 x 102 x 21                           | 65 x 85 x 29.8                           | hitachiaircon.com.au      | 403                       |  |
| h quieter / quieter | 6.7                   | 6.3           | 7.5                                           | 7.1                                        | 4                       | ✓              |                 | ✓             | ✓ (B)      | 31 x 108.5 x 24.5                       | 75 x 88 x 34                             | mhiiaa.com.au             | 421                       |  |
| ter / quieter       | 6.1                   | 6.9           | 4.2                                           | 7.3                                        | 3                       | ✓              |                 | ✓             | ✓ (B)      | 31.5 x 99 x 24                          | 86 x 89.5 x 33                           | mideaair.com.au           | 431                       |  |
| ter / quieter       | 5.5                   | 6.3           | 5.4                                           | 7.2                                        | 5                       | ✓              | ✓               | ✓             | ✓ (C)      | 29 x 106 x 25                           | 79.5 x 87.5 x 32                         | panasonic.com.au          | 449                       |  |

ent efficiency, 70% is good and 50% is borderline. **Measured capacity** Reverse-cycle air conditioners are sold with rated heating and cooling capacities – you should choose one based on the cooling heating capacity required for your room(s). The highest capacity we measured in our test is shown here. **Annual running costs** We calculate how much each model costs to deliver 1500kWh of full cooling, 1500kWh of partial cooling and 3000kWh of heating per year when running at its measured maximum capacity, with the remainder of the year in standby mode (based on electricity costs of 20c/kWh). Standby costs add only a few dollars a year, but it may still be a good idea to unplug your air conditioner (if possible) when it's not in use for long periods. **TABLE NOTES** \* Low fan setting. \*\* Not including quiet or power speeds. (A) Discontinued; replaced by RA560YHA3 (B) With automatic temperature adjustment. (C) The Panasonic has dual timers; you can use one in the evening as a sleep timer.

## WHAT TO LOOK FOR

**Energy efficiency** Once you've worked out what capacity you need using the CHOICE cooling and heating calculator (see below), compare the star ratings of models of similar capacity – the more stars, the lower the running costs and greenhouse gas emissions. Note that star ratings are different for heating and cooling.

**Automatic de-icing** Frost may build up on the outdoor heat exchanger coils in winter if you live in a cold area and the air conditioner doesn't have this function (all models on test do).

**Noise** Air noise indoor unit may interfere with your conversation – or sleep – and most local councils have noise restrictions relating to the use of air conditioners. Check local regulations before buying,

especially if the outdoor unit needs to be installed close to a neighbour's house. In this test, the Mitsubishi Electric and Mitsubishi Heavy Industries stand out as the quietest indoor units (in quiet mode), with the Hitachi also very quiet.

**Remote control** Look for large, well-spaced buttons and a big, easy-to-read LCD screen.

**Fan speeds** The fan circulates cooled or heated air around the room. Look for a model with a wide airflow range (models with a wide range have higher airflow scores in our test) and multiple fan speeds – from very high, to help the room cool down quickly, to very low, so there's less noise and no unpleasant draught once you have the right temperature.

**Timer** This lets you switch the air conditioner on and/or off automatically at certain times. All models on test have one.

**Airflow control** Some models



| Cooling<br>The more stars the more energy efficient                                    |                | Heating<br>The more stars the more energy efficient |                |
|----------------------------------------------------------------------------------------|----------------|-----------------------------------------------------|----------------|
| ENERGY RATING                                                                          |                | ENERGY RATING                                       |                |
| Capacity Output kW                                                                     | Power Input kW | Capacity Output kW                                  | Power Input kW |
| 6.50                                                                                   | 1.92           | 7.10                                                | 1.82           |
| Compare models at <a href="http://www.energyrating.gov.au">www.energyrating.gov.au</a> |                | Model 1 Model 2 Model 3                             |                |

## More stars equals more efficiency

have settings with reduced airflow (quiet operation) and/or extra-high airflow (fast or jet operation).

**Sleep mode** adjusts the temperature to a comfortable level for sleeping so the air conditioner doesn't work as hard (and therefore is quieter) when you're sleeping. You can program how long you want the sleep mode to operate. All models on test except the Mitsubishi Electric have a sleep timer to shut off after a set time when you go to bed, but not all automatically adjust the temperature – see the table, page 69.

**Adjustable or oscillating louvers** allow the air to be distributed more evenly. Point them up for cool air and down for warm; this can be done via the remote for all models on test. A left and right adjustability function helps direct air where it's particularly needed.

**Restart delay** is a protective feature that prevents the air conditioner from starting up again too soon after being switched off.

## Cool picks

**T**here are a few key steps you can take to ensure your next air conditioner is the best choice for your home:

**1 Consider whether you really need one at all.** Making your home energy efficient with insulation, curtains and so on really helps keep the inside cool in summer and warm in winter.

**2 Plan ahead to buy your air conditioner before the season for which you need it most,** so you can beat the rush and have it installed in time. If you can wait until peak demand is over, you may be able to pick up one on sale.

**3 Calculate the right cooling and/or heating capacity for the room** – our

online calculators will help (see [choice.com.au/coolingcalculator](http://choice.com.au/coolingcalculator) and [choice.com.au/heatingcalculator](http://choice.com.au/heatingcalculator)). There are several factors to consider: including the room's use, insulation, size and facing of windows, curtains, blinds and so on. An insulated ceiling can reduce the required cooling or heating capacity by one kilowatt or more, and replacing internal blinds with external awnings or double glazing can reduce the requirement even further.

**4 It may be better to get a model with slightly more cooling/heating capacity than you think you'll need.** A unit that doesn't have to work as hard could actually be more efficient in the long run. Inverter models, such as those

on test, are generally most efficient when running at part load.

**5 Use our results to find a model with the capacity, features and price to suit your needs.**

Get quotes from a few different installers. Also check the star rating labels – the more stars, the better.





### Nutshell

- Most tents on test perform OK, but some are much better than others at keeping out the rain.
- It's definitely worth shopping around for your next tent, as prices can vary wildly from their RRP.

## Sheltered existence

A good tent can mean the difference between a memorable holiday and a disaster, says **Matthew Steen**.

**A** family camping trip can be a wonderful event. The surrounds, the great weather (hopefully) and spending quality time together are aspects most families look forward to.

A good tent can make or break this experience. If you need to replace your old one or are buying for the first time, be wary of the capacity claims, which are based on the number of sleeping bags that will fit in and don't take into account storage space for luggage or other camping gear. The four-person tents on

test are comfortable for two adults, while a family of four should fit into a five- or six-person tent with reasonable comfort.

Good camping retailers erect samples of their tents in store so you can see how much space you'll have. Take your family along when buying and get them to try to fit inside the tent; this will give you an idea of just how tight the space is, and whether you'll need a tent with a separate room for the kids. Most tents on test have a vestibule or annex where you enter the tent and store your gear, as well as a zipped doorway to the sleeping compartment. All have a power cord entry point and a hook for hanging a light.

You can't tell by looking at a tent whether it will leak should that perfect weather turn sour, so check out the rain test scores in the table, page 72. Anything less than 70% means that the tent has comparatively more

leakage. We also subjected the tents to heavy gusts of wind during testing, and all managed to stay erect, though some needed their guy lines (the ropes that attach to the tent pegs) re-tightened in the morning. Some tents specify what type of weather they're best for – some manufacturers argue that better ventilation is more important than water resistance for Australian weather. Ideally you should plan for the best and worst weather, and look for a tent that's waterproof when needed and has good ventilation when not.

Pricing was erratic when we bought the tents – one cost twice its recommended retail price and another half, so it's really worth shopping around. Tents are constantly redesigned too, so you may find minor differences between what we test and what you find on the shelves, such as colour and features. ►

**15 mins**  
Quickest time to put up a tent we tested

**25 mins**  
Slowest time to put up a tent we tested

## WHAT TO BUY



**Best Buy**

**86%**

**Outdoor Connection Weekender Dome, \$299**

### Good points

- Quick to put up and take down (15 minutes up, 10 minutes down).
- Dry sleeping area after rain.
- The fly material feels stronger than the other tents.
- Has provision for attaching walls to the awning.
- Assembly instructions are sewn into the bag so they can't be lost (unless you lose the bag).
- Pegs are quite long and thick.

### Bad points

- Comparatively heavy to carry.



**81%**

**Kathmandu Retreat 270, \$830**

### Good points

- Dry sleeping area after rain.
- Easy to attach the fly to the frame using velcro strips.
- Instructions sewn into the bag.
- Pegs are reasonably long and thick.

### Bad points

- Slow to put up and take down (25 minutes up, 15 minutes down).
- Comparatively heavy to carry.



**79%**

**Coleman Timbertop Geo 6 CV, \$530**

### Good points

- Dry sleeping area after rain.
- Easy to attach the fly to the frame using velcro strips.
- Instructions sewn into the bag.
- Has provision to attach a fan to the front part of the main sleeping area.
- Pegs are quite long and thick.

### Bad points

- Slow to put up and take down (25 minutes up, 15 minutes down).
- Comparatively heavy to carry, though it has wheels to pull it along.

|                                   |            | PERFORMANCE       |                     |                     |                            |            | SPECIFICATIONS            |                 |                   |                          |               |
|-----------------------------------|------------|-------------------|---------------------|---------------------|----------------------------|------------|---------------------------|-----------------|-------------------|--------------------------|---------------|
|                                   | Price (\$) | Overall score (%) | Usability score (%) | Rain test score (%) | Ease of assembly score (%) | Frame type | Claimed number of persons | Number of doors | Number of windows | Internal storage pockets | Sleeping area |
| Outdoor Connection Weekender Dome | 299        | 86                | 80                  | 100                 | 80                         | Dome       | 4                         | 2               | 2                 | 6                        | 2.7x          |
| Kathmandu Retreat 270             | 830        | 81                | 90                  | 80                  | 60                         | Geodesic   | 6                         | 4               | 5                 | 20                       | 2.2x          |
| Coleman Timbertop Geo 6 CV        | 530        | 79                | 80                  | 90                  | 60                         | Geodesic   | 6                         | 4               | 2                 | 2                        | 2.5x          |
| Diamantina Escape Duo             | 499        | 77                | 70                  | 100                 | 60                         | Crossover  | 6                         | 4               | 4                 | 8                        | 2.3x          |
| Koda Inspire 6P Dome              | 259        | 74                | 80                  | 60                  | 80                         | Geodesic   | 6                         | 1               | 3                 | 2                        | 4.1x          |
| Diamantina Fraser 6               | 479        | 73                | 80                  | 70                  | 60                         | Geodesic   | 6                         | 4               | 2                 | 3                        | 2.3x          |
| Roman Tracker 6 TTRACK6           | 399        | 73                | 80                  | 70                  | 60                         | Geodesic   | 6                         | 4               | 2                 | 3                        | 2.3x          |
| Caribee Kestrel 5                 | 239        | 69                | 70                  | 60                  | 80                         | Crossover  | 5                         | 2               | 4                 | 4                        | 3.0x          |
| Coleman Overlander 4 CV           | 280        | 69                | 70                  | 60                  | 80                         | Crossover  | 4                         | 3               | 2                 | 1                        | 2.3x          |
| Oztrail Peak Twin Dome 6          | 299        | 68                | 80                  | 40                  | 80                         | Dome       | 6                         | 4               | 2                 | 2                        | 2.3x          |
| Caribee Kestrel 4                 | 199        | 64                | 60                  | 60                  | 80                         | Crossover  | 4                         | 2               | 4                 | 4                        | 2.4x          |
| Oztrail Breeze Family 6 (A)       | 299        | 64                | 60                  | 60                  | 80                         | Crossover  | 6                         | 4               | 4                 | 4                        | 2.4x          |
| BlackWolf Tanami 6EV              | 400        | 62                | 50                  | 70                  | 80                         | Crossover  | 6                         | 2               | 2                 | 3                        | 3.2x          |
| Spinifex Huon Geo 90028976        | 400        | 51                | 60                  | 30                  | 60                         | Geodesic   | 6                         | 4               | 4                 | 3                        | 2.0x          |

USING THE TABLE Price Recommended retail, as of August 2011. Scores The overall score is made up of: Usability: 50%; Rain test: 30%; Ease of assembly: 20%. Features See What to Look For, opposite, for details. TABLE NOTES (A) The manufacturer claims this model has been updated with improvements to the window system and stitching.



77%

Diamantina Escape Duo,  
\$499

## Good points

- Dry sleeping area after rain.
- Easy to attach the fly to the frame using velcro strips.
- Instructions sewn into the bag.

## Bad points

- Slow to put up and take down (25 minutes up, 15 minutes down).
- Comparatively heavy to carry.
- Poles were not supplied for the awning.
- Pegs are quite short and thin.

For  
profiles of and  
to compare all tents  
on test, go to [choice.com.au/tents](http://choice.com.au/tents)

|      | Weight (kg) | Contact                                                                |
|------|-------------|------------------------------------------------------------------------|
| only | 17.3        | <a href="http://outdoorconnection.com.au">outdoorconnection.com.au</a> |
| x1.9 | 22.0        | <a href="http://kathmandu.com.au">kathmandu.com.au</a>                 |
| x1.9 | 22.1        | <a href="http://colemanaustralia.com.au">colemanaustralia.com.au</a>   |
| x1.8 | 21.0        | <a href="http://diamantina.net.au">diamantina.net.au</a>               |
| only | 12.6        | <a href="http://kodagear.com.au">kodagear.com.au</a>                   |
| x1.7 | 19.4        | <a href="http://diamantina.net.au">diamantina.net.au</a>               |
| x1.7 | 19.4        | <a href="http://roman.com.au">roman.com.au</a>                         |
| x1.8 | 10.5        | <a href="http://caribee.com">caribee.com</a>                           |
| x1.8 | 12.7        | <a href="http://colemanaustralia.com.au">colemanaustralia.com.au</a>   |
| x1.9 | 12.6        | <a href="http://oztrail.com.au">oztrail.com.au</a>                     |
| x1.7 | 9.2         | <a href="http://caribee.com">caribee.com</a>                           |
| x1.7 | 11.6        | <a href="http://oztrail.com.au">oztrail.com.au</a>                     |
| x1.7 | 13.7        | <a href="http://blackwolf.com.au">blackwolf.com.au</a>                 |
| x1.7 | 14.0        | <a href="http://anaconda.com.au">anaconda.com.au</a>                   |

## WHAT TO LOOK FOR

**Size** If you're after a family-size tent, your two main choices are cabin or dome. Look carefully at the tent's claimed capacity, which really packs you in like a sardine, and aim for above this by at least two to avoid a tight fit

– for example, a six-person tent to comfortably fit four.

**Type** For dome tents, we classify your choices as crossover (the frame poles cross over each other), geodesic (crossover poles and two hoop poles at the sides) and pure dome (two hoops only).

**Height** Make sure the tent is high enough to

stand in. Also make sure the walls don't slope in too much, limiting your usable space. See it erected in the shop to be sure.

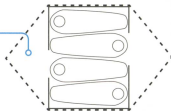
**Instructions** Look for a tent with assembly instructions permanently attached to the carry bag, which can be very useful if you haven't put it up in a while.

A **vestibule floor** is handy, and those that peg down are easier to secure than those that clip on or attach by velcro because you don't have to line the tent up so precisely.

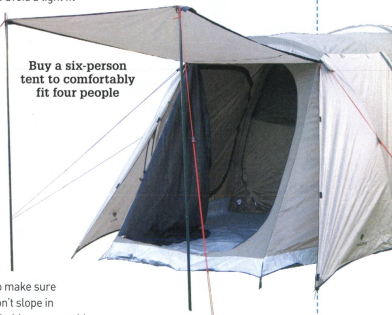
A **large, strong carry bag** is essential, but note that what appears to be an adequate size in the shop may be too small when you fit the tent back in – it never rolls up as compactly as when you first got it.

**Pegs** should be a good length (at least 20cm) and thickness (about 5mm) and made of steel. Plastic ones are good in very sandy soil, but break more easily.

**Ropes** should also be a good length,



Buy a six-person  
tent to comfortably  
fit four people



thickness (a minimum of 3.5mm-4mm diameter) and easy to adjust.

**Peg-down points** should be heavy duty and securely attached to the tent.

**Windows** should be large and easily secured when rolled up. Zipped windows are best, but there should be good wide flaps over the zip to keep water from entering the tent.

A **door on either side of the vestibule** as well as the front is convenient, as it allows you to keep the weather out if it's coming from one direction while still maintaining ventilation.

**Vestibule doors that roll upwards** rather than sideways are handy, because they can be pegged out as awnings.

**Internal pockets** in the inner tent are useful for storing small items.

**Power cord access** through a small zip in the inner tent wall is useful if you want to use power.



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|                                    |                        |                                |                   |                             |                                |               |
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# Hard Word



queen size bed FA3376  
bedding & child not included

\$150  
each

## Are they kidding?

If the makers of this catalogue really have to point out that the child is not included, then why not the cartoon character lounging next to her too?

## ENJOY! That's an order

Simon and Helen Brooks found this pushy label on a toy samurai sword won by their son at a local show.



## POT LUCK

Why not feast on fruit for years to come, with an orchard in a pot for just \$29?



## CABBAGE OR PINEAPPLE?

You'd think the Fresh Food People would be able to tell the difference. CHOICE food policy advisor Angela McDougall dug up this odd-looking pineapple at Woolies.

Richard Andrews was hoping this unit would last him his whole retirement...

## Be quick...

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Quality aged care

Our newly refurbished units won't last long!



6 Months  
FREE FEE!

Unit 96 - \$285,000\*\*

Refurbished unit in desirable garden location!

- Great location - just a stroll to the Community Centre
- Light and spacious open living with bright outdoor area
- Freshly painted with renovated kitchen
- New carpet and tiles to open living plan
- Opportunity to take part in our fun lifestyle!

Thanks this month go to Norma Evans, Angela McDougall, Barbara Stoneman, Simon and Helen Brooks and Richard Andrews. If you have any examples you'd like to share with other CHOICE members, send them with your full name to Hard Word, CHOICE, 57 Carrington Road, Marrickville, NSW 2204. Please don't email us your entries - we need the unmarked originals.